SALES CONFERENCE NUMBER

EDISON BULLETIN

ELECTRIC INSTITUTE

APRIL, 1940

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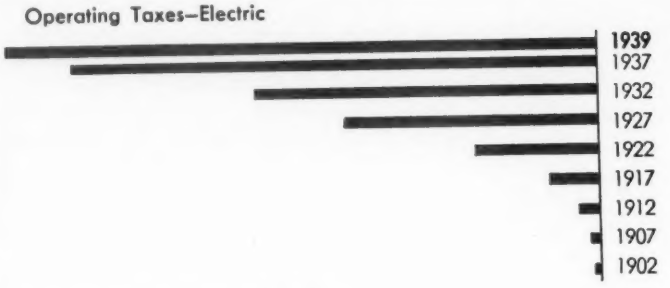
EDISON ELECTRIC INSTITUTE

TAXES $1,000,000.00 PER DAY

The Private Electric Light and Power Industry, 1902-1939

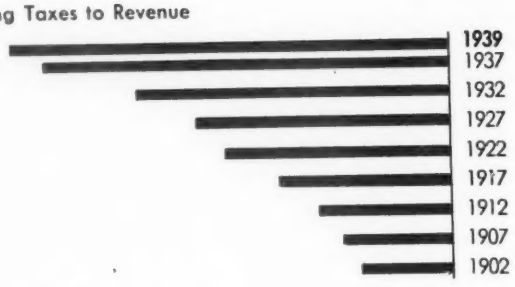
Operating Taxes—Electric

1939	**$350,000,000**
1937	312,270,800
1932	203,858,500
1927	150,253,300
1922	73,128,400
1917	29,897,100
1912	13,117,200
1907	6,345,800
1902	2,654,900



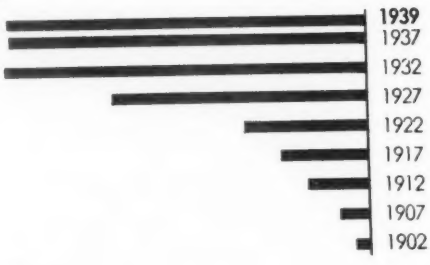
Percentage Operating Taxes to Revenue

1939	**16.30%**
1937	15.19
1932	11.73
1927	9.46
1922	8.28
1917	6.43
1912	4.89
1907	4.06
1902	3.44



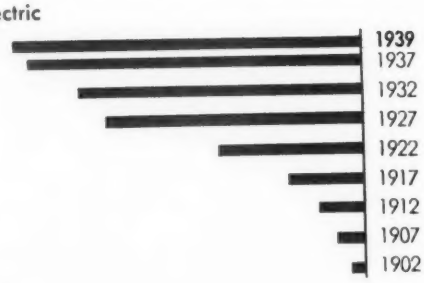
Investment—Electric

1939	**$12,000,000,000**
1937	11,936,205,000
1932	12,124,807,000
1927	8,547,739,000
1922	4,229,356,000
1917	2,933,017,000
1912	2,098,613,000
1907	1,054,034,000
1902	482,720,000



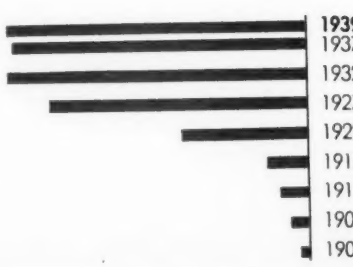
Operating Revenue—Electric

1939	**$2,141,000,000**
1937	2,055,586,200
1932	1,737,973,100
1927	1,588,908,000
1922	883,333,500
1917	464,880,700
1912	268,360,100
1907	156,446,900
1902	77,132,000



Operating Income—Electric

1939	**$743,000,000**
1937	733,729,600
1932	742,950,400
1927	642,668,400
1922	314,226,600
1917	91,506,600
1912	61,394,300
1907	37,750,000
1902	15,514,400



Vol. 8, No. 4, EDISON ELECTRIC INSTITUTE BULLETIN; published monthly. Entered as second-class matter Aug. 17, 1933, at the post office at Philadelphia, Pa., under the act of March 3, 1879. Publication office, 56th and Chestnut Sts., Philadelphia, Pa. Editorial office, 420 Lexington Ave., New York, N. Y. Subscription rate $2.00 per year in the United States; $3.00 per year in foreign countries.
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EDISON ELECTRIC INSTITUTE BULLETIN

Volume 8 APRIL, 1940 No. 4

Tops Them All

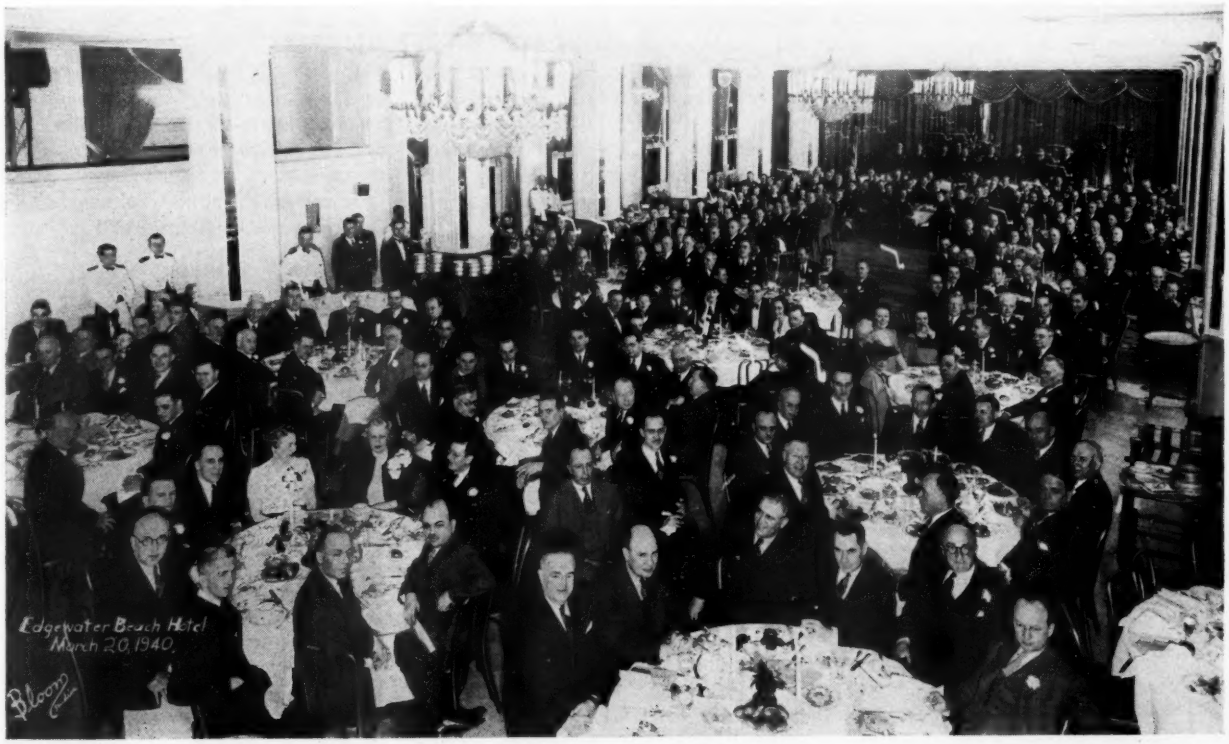
Commercial Men in Seventh Annual Sales Conference

By C. E. Greenwood
Commercial Director, Edison Electric Institute

THE NUMBER SEVEN has always carried a halo of luck over it. Perhaps we should have expected the Seventh Annual Sales Conference of the Institute to be the largest and best of the series, and now that it has passed, we salute it as just that, because consensus of opinion makes it so. And since the valuable contributions of the speakers and the attendance at meetings make the Conference, and we were rich in both, we registered a "lucky seventh."

All the commercial events happened at Edgewater Beach Hotel, Chicago, the week of March 18th. Monday, the 18th, was Committee Day. The Chairmen holding meetings took advantage of the presence of utility men from distant States and Open House in deliberations was in order.

On this same day the Annual Meeting and luncheon of the Better Light-Better Sight Bureau took place. J. E. North of Cleveland Electric Illuminating Company was re-elected Chairman for a second year and Henry Steinmetz of Public Service Electric & Gas Company, Newark, was elected Vice Chairman. H. F. Barnes, General Electric, Cleveland; Oscar P. Cleaver of Westinghouse Company, and C. E. Greenwood, Edison Electric Institute, continue as members of the Executive Committee. The report of the Secretary, G. R. Trumbull, called attention to the sustained character of the Better Light-Better Sight activity now starting its seventh year of promotional progress,



A Section of the Ballroom at the Banquet

and pointed out plans of the Bureau for 1940.

On Tuesday morning, the 19th, there was an Open Session of the Modern Kitchen Bureau over which W. H. Sammis of Commonwealth & Southern Corporation, Chairman of the Bureau, presided. If there was any "doubting Thomas" on the question of achievements of the Bureau to date, his doubts were dispelled after that meeting. Regional Directors scheduled on the speaking program to testify to the acceptance of the promotional advantages of this virile cooperative effort with the manufacturers of electric kitchen equipment were Lewis A. Lewis of Spokane, Wash.; W. S. Schmidt of Buffalo; C. H. Leatham of Fairmont, W. Va., and L. L. Edgar of Boston. Chairman Sammis read a résumé of local activity from R. B. Roberts of Miami and from H. G. Isley of Raleigh, N. C.

A typical State Association tie-in was pictured with the results obtained by A. R. Kessler, North Central Association Electrical Industries, Minneapolis, Minn.

The presentation of 1940 product campaigns by representatives of the different equipment sections of NEMA were features of the meeting. These were comprehensive and convincing of the potential sales opportunities through local tie-ins with the extensive and effective National advertising and promotion through the Bureau. The meeting concluded with an inspirational description of local applications by field representative Dr. G. W. Allison. A complete report of this meeting is to be made available for those in attendance which accounts for omission of the presentations in other columns of this issue.

Running Water—Your Family Deserves It

MR. GREENWOOD

The General Sales Committee EEI luncheon and afternoon session followed this same day. It was productive of intensive thought on commercial problems of the industry. Already released is the Resolution on Fluorescent lighting sources defining Institute policy in promotion which was passed at this meeting.

Following customary practice, the Editor of the BULLETIN has allotted the lion's share of the space in this issue to present to the five to six hundred who attended the Sales Conference, and to the hundreds who wanted to be there and could not, a record of most of the presentations at General Sessions, held on March 20 and 21. Copy of any missing one may be had upon written request. It is enlightening to have the different points of view expressed by the speakers although we may not agree to the premises through which conclusions are reached.

Before passing on to other events, mention is made of one number which merits a place in the records of the Conference—a dramatization which cannot be written up. On the program one read *Better Lighting Makes a Satisfied Customer*. The script of this Playlet visualized the growth in business and the vision of Merchant Brown who owned a store at the crossways. Witnessing this entertaining presentation one was convinced of the power of salesmanship, and the consumer advantages in an economically sound investment in lighting in building business. It did so for Mr. Brown from the time he saw the fixture adaptors in his store, until the crowning achievement of reading the name *Brown* —in lights—over the front of his store.

But of particular interest was the fact that this script was written by, and presented by, employees of Gulf States Utilities Company, Beaumont, Texas. Clay McCarroll, Miss Mary Lilyerstrom, Marcus Andrews, Rufus Manley, Clarence Barron and Wade Phillips journeyed from Beaumont and other points in Texas and Louisiana to stage this production for the benefit of those attending the Conference.

An innovation in the events of the week was the banquet in the Ball Room of the Edgewater Beach Hotel on the evening of Wednesday, the 20th, which was attended by more than 300 persons. We were fortunate in having two speakers of prominence in the business and industrial fields. Mr. Charles W. Kellogg, President of the Institute, took the subject *To Sell or Not to Sell* and under this caption left no doubt in the minds of his audience of the essential service performed by the commercial departments of utility companies, and the need of intensive promotion on the part of the utilities to build their business.

Our guest speaker was Walter D. Fuller, President of Curtis Publishing Company, a Regional Vice President of National Association of Manufacturers. Speaking on the subject of *What Price Prosperity?*, Mr. Fuller pointed out what can be done by unhampered business to bring about re-employment, and quoted convincing results from the practical application of the principles defined in the State of Pennsylvania through an organized activity of which he is the leader. Both of these addresses appear elsewhere in this number of the BULLETIN.

Harris E. Dexter, Chairman of the General Sales Committee of EEI, acted

Promotional Messages of the Commercial Cooking Council

Modern Kitchen Bureau Displays Its Promotional Material

as Toastmaster. Mr. Dexter likewise presided at all General Sessions of the Conference.

An Industry Conference on Fluorescent Lighting took place on Friday morning, March 22nd. This was in the nature of a Special Session but it attracted approximately 250 persons interested in this live and controversial subject. The Chairman of the Conference was George E. Whitwell of Philadelphia who opened with a keynote address in which he pointed out highlights in the development of fluorescent light sources, the errors and misunderstandings that had occurred, and the clarification of the utility's position through a "Resolution" passed at the meeting of the EEI General Sales Committee. This will constitute the policy of the Institute in the forward progress of this new lighting product.

J. E. Mueller, Chairman of the Lighting Sales Committee, presented a paper covering the economics of present lighting which was followed with a symposium by seven representatives of utilities, and manufacturers of fluorescent tubes and fixture equipment. General discussion followed. The Conference was constructive and productive of much good in clarifying thinking on the entire subject. It is to be regretted that all presentations at this special Conference could not be included in this issue. The Resolution of the General Sales Committee does appear. The addresses and discussions of the Fluorescent Lighting Conference are included in a published report which has been made available at nominal price to those interested.

Joining us this year were many of the utility advertising executives included in the membership of the Public Utilities Advertising Association. Between thirty and forty attended a luncheon of these PUAA members under the direction of Thomas H. Spain, Advertising Manager of the Public Service Electric & Gas Co., Newark, N. J.

The dais of the hotel ball room was occupied with a Promotional Exhibit, including the material produced by the four National Cooperative Programs in which Edison Institute is co-sponsor. The extent of these activities was impressively presented, but what cannot be shown on the surface is the amount of thought, effort and money that have been placed back of these Programs. Some of the results, but not all, were indicated. The exhibit this year was newly conceived and built up on a more attractive basis than formerly.

This is an opportune time to leave the suggestion to our commercial readers that they should make it a habit to attend these annual get-togethers. Men from East and West, and North and South, with basic utility problems, had opportunity for the valuable side conferences. Manufacturer representatives, advertising men and others had opportunity to orient their thinking and the general advantages of such conclaves were gained.

Let us not forget the social hours with the manufacturers and others during the evening hours. The pièce-de-résistance in entertainment was the Open House held in advance of the banquet through the courtesy of Curtis Publishing Company when a few hundred who attended the banquet had the pleasurable opportunity to meet President Fuller of that company who was the guest speaker of the evening.

And now we introduce Harris E. Dexter, Chairman of the EEI General Sales Committee, who made the opening address of the Conference.

A Section of the Exhibit of Better Light-Better Sight Bureau

Faster in 'Forty is the Watchword

By H. E. Dexter
Vice-President, Central Hudson Gas and Electric Corp.

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

SPEED limits are higher than they used to be. Autos and trains are streamlined; some of us travel to meetings such as this by air; and no one waits nowadays for the headlines in the morning paper to find out how the world is faring. Instead we turn on the radio at night and get "tomorrow's news today."

All these are merely indications that we live faster in 1940 than we did in 1930—that the tempo of our entire universe is faster than 10 years ago.

What does this change in tempo mean to the utility business? What does it mean to us as sales executives? To answer these questions we must go back to fundamentals. Mr. Kellogg pointed out in his talk before this group last year that "the public service business is a service, but it is also a business. If it does not succeed as a business, it does not succeed at all."

Now the utility dollar goes out approximately 5/8 in fixed charges, consisting of taxes, depreciation and return on investment, and 3/8 for operating expenses—that is, making, selling and distributing the product and maintaining the property. More than half of these operating expenses are represented by payroll.

Let us look at these items of expense and see what is happening. Utility taxes are up, the cost of materials is up, and labor or payroll, which represents half of our maintenance costs, is up; and so, if we are to succeed as a business, we must add profitable sales. It is not enough to add sales which bring just sufficient revenue to defray their own out-of-pocket cost. They must produce an additional margin to offset the increase in the cost of supplying the kwhr for the business we already have.

In this year—1940—it is important that we dust off our thinking machinery and do some real scientific planning. Sales plans that consider only volume of sales produced are no longer worth the name of sales plans. Successful plans are those which yield the greatest contribution to the net figure in the income statement. In general, our plans should produce:

1. More profitable sales per dollar of sales expense.
2. More complete coverage of the existing markets so that we get the maximum benefit from our general sales promotion.
3. A proper balance between our industrial, commercial and residential sales.
4. Better saturation of our existing investment represented by present rural lines, substations, distribution networks, and transmission lines that are now available but not fully loaded.

MR. DEXTER

The starting point as well as the finishing point of these plans is the customer. He is the starting point because, if we are to sell our service, we must know his business almost as well as we know our own. The weakest point in selling generally is the inability of the men in the field to listen to the customer and really sincerely understand his problem. They are all too anxious to proceed with their own story irrespective of whether it fits or not. If we do not start correctly with our customer, we cannot expect to get to the finishing point because the customer is the one who finally decides whether we sell our service or not.

Fortunately for us, our commercial, industrial and farm customers themselves are feeling the pinch of rising taxes, higher cost for supplies, and increased labor charges. They too must produce more, at lower unit costs, to stay in business, and it is here that we enter the picture. Electricity not only supplies a flexible and dependable source of power which is always available throughout the 24 hours of the day, but through the application of electronics for control purposes, is able to take over many operations hitherto carried out only by the most tiring and nerve-racking human effort. It is the ability of electricity, when properly harnessed to the job, to provide this automatic operation that gives us our best field for the sale of additional service. In addition to this, with more modern lighting in their stores, better lighting in their factories, and more up-to-date electrical equipment in their barns, our commercial, industrial and farm customers can operate at lower unit costs and can continue to make profits. To this class of customer electricity can usually be sold to produce tangible financial results for the customer.

What of Mrs. Residential Customer? She too is being subjected to the pressure of increased taxes and higher prices. Despite these heavier expenses, the family income in general is just about static. Unless she can find some way out, her family is facing a lower standard of living. However, there is at least one solution—she can substitute the electric way for the other more expensive and less convenient ways of performing her numerous household tasks. Electric refrigeration saves food spoilage and permits her to shop for food on bargain days. Automatic cooking gives her all the freedom in the afternoon that she would have if she hired a cook. Toasters, coffee urns and other table appliances make it possible for her to give a dainty bridge luncheon without the aid of outside help. Ample supplies of hot water make clothes washing, scrubbing and dishwashing much easier, and make it possible to eliminate the weekly bill to the laundress.

The radio and its younger brother, television, when it hits its stride, will furnish the best music and entertainment at home for the whole family, at a fraction of the price of other forms of recreation. Proper air conditioning will lengthen the time between the periodic redecorations of their home and thus reduce this item of expense. It will probably curtail the number of colds contracted by the family and will thus decrease the doctor's bill. It is not stretching the imagination too far to consider that the time may come when the family with an air-conditioned house may vote to stay at home and be comfortable instead of spending their vacation in that hot summer camp, thus saving themselves a tidy sum of money.

All these many avenues of escape from the crushing jaws of higher taxes and higher prices are offered to Mrs. Housewife by the substitution of electricity for other forms of power, heat and light, and this fact should enable us to sell electrical household equipment "Faster in Forty."

In addition to this, the lower income brackets of our residential market offer a great opportunity for business yielding a high return. These customers are on the higher blocks of the rate, our present investment necessary to serve them is not loaded and is adequate for their increased demands. Any increase in load merely increases the load factor on our equipment and lifts the customer out of the unprofitable class—a very productive operation for us.

Our rates are pretty generally low enough so that electricity can be used in place of other forms of competing energy. However, these low income customers have scarcely any capital money at all available to purchase new equipment. Any new equipment purchased must be paid for by small daily, weekly or monthly payments made from earnings. On the other hand, our new 1940 prices for refrigerators should, with proper financing plans, open a new market for refrigeration sales and should make refrigeration available in homes that have not as yet even dreamed of having a modern refrigerator.

A roaster and hotplate will give this class of customer a full cooking service, and the non-pressure water heater will provide a hot water service that is cheap and adequate. In fact, it will supply many of these customers with all the hot water they want—more than they have had from their present customers, and at much less inconvenience. These are the type of customers that mail order houses sell this kind of a bathtub to, and believe it or not, there are a lot of them in use.

This low income bracket of our customers offers a market that has as yet hardly been scratched. It can be sold, and when it is sold, it will make a handsome contribution to our net earnings, *plus business* for the equipment manufacturer, and render a real service to our customers.

In closing there is just one thought that I want to leave with you. This industry in the last decade has invested many millions of dollars in added plant. During this period the returns in net have been somewhat disappointing. Now if the utilities are to continue to succeed as a business, it is vital that they continue in a sound financial position.

The efficiency of generation has been carried to its economic limit. The refunding operation has also been carried very nearly to its limit, and the only practical solution left is to add additional *profitable business.*

Here is our golden opportunity to prove by performance that the sales department is not just an item of necessary expense, but that it can add new revenues that mean added net to the company's overall operation.

The 1940 selling season is here. Let's give her the gun and go!

RESOLUTION ADOPTED BY GENERAL SALES COMMITTEE, EDISON ELECTRIC INSTITUTE, BEARING ON PROMOTION OF FLUORESCENT LIGHTING, MARCH 19, 1940

Whereas, the electric utility industry, together with cooperating groups, through duly organized and directed educational and promotional effort over a period of six years, has promulgated certain scientific principles in lighting applications pointing out the relationship of light to the conservation of eyesight, under the caption "Better Light-Better Sight," and

Whereas, the utilities have helped to establish the validity of these principles among all classes of electrical consumers, and

Whereas, new fluorescent sources have been introduced into the field of general lighting which, together with controlling devices and light utilization equipment affect the quality, quantity and efficiency of lighting systems and

Whereas, fluorescent sources and the equipment for their use now available on the market involve not only problems but also opportunities in rendering the best lighting service to the consuming public by utilities and manufacturers and sellers of these sources and equipment, and

Whereas, it is essential to lighting progress that there be clarification of viewpoint on the merits of fluorescent lighting in the general lighting field, and on the present practices and methods employed in promoting, advertising and selling to the public at large; Therefore be it

Resolved: That it will be the policy of the General Sales Committee of Edison Electric Institute

1. To encourage every sound technical development in lighting sources and the art of their application in those fields where a better service can be rendered in accordance with the broad, established Better Light-Better Sight principles, with emphasis on freedom from glare, proper levels of illumination and the best interests of the consumer.

2. To promote only such lighting equipment as will provide good power factor (90 per cent or more) thereby protecting the wiring capacities of consumer installations.

3. To lend support to such advertising programs and to engage in such active promotion of fluorescent lighting as are consistent with the facts, are free from exaggeration and are easily subject to accurate interpretation by the consumer.

4. To cooperate with all manufacturers of light sources and equipment who are interested in the promotion of better lighting in so far as it contributes to the health, comfort and convenience of electrical consumers, and to the industrial and commercial progress of the country.

5. That a copy of this Resolution be sent to manufacturers of light sources, fixtures, portable lamps, and others interested in lighting development.

To Sell or Not to Sell

By C. W. Kellogg
President, Edison Electric Institute

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

A FEW years back your chairman entitled his keynote address: "Why Are We Here?" I think this question could well be implicit in every conference or convention we hold, for we must never forget that a large expenditure of time, energy and money is involved in every gathering like this one. In addition to the cost of this meeting itself, there is the $75,000,000 the industry expends annually for sales and promotional work. The question arises from time to time whether the continuation of this large expenditure and the sales effort it represents are worth while. Sometimes the question is raised by a management hectored by problems of financing additional capacity, wondering if the effort is worth making. Sometimes it is raised by those fearing that a condition of saturation is arriving and that sales expenditures will meet with diminishing returns. Or again, it may be raised as a pure matter of an economy in expense to offset other growing costs of operation.

To all of these questionings my own answer is: Yes, it is worth while. My talk will endeavor to state the reasons for my feeling.

In the first place, as to saturation, I do not think it is in sight yet. The increase in energy consumption per residence last year was exceeded in only one of the last 10 years. For those whose figures are above the national average, there is always the accomplishment of the best to spur them on and those whose performance is below average can strive to attain that figure. Rate reductions, in spite of rising costs, continue to be the news of the day, and the only cure for them is vigorous sales effort. In the commercial field we have just begun to fight. We still have keen competition from other interests who are willing to spend their money and effort to try to get away from us our share of the consumer's dollar. Every year hundreds of thousands of young folks get married and start housekeeping; every year hundreds of thousands of people improve their economic status to the point of being able to purchase service and equipment they could not before; every year thousands of commercial customers reach a condition where they can use more electric service to advantage. The only way we can get this business as it comes to fruition is to be eternally out after it. Saturation is definitely not yet in sight.

But even if these things were not the case I should still be in favor of strong, aggressive selling for other basic reasons.

Sales mean growth and growth means life. A business that has ceased to strive to grow and expand is a fossil. And let us not delude ourselves with the thought that cessation of selling would mean merely keeping a sort of status quo. It would not. We should in no time find rigor mortis setting in throughout the organization. Without the spur of sales activity and effort, our business would degenerate into a mere routine of keeping the wheels turning and a business in this state would no longer attract to its ranks men of enthusiasm and energy; we should become a sort of waterworks. Sales stagnation would soon react on those in our organizations engaged in growth and development, who would look in vain for a field in which to exercise their talents and ingenuity.

For after all, sales is the department of our business which gives the greatest opportunity for self expression and individual initiative. Most of the processes of our business of necessity tend to become stereotyped and settled in a rut. This follows almost inevitably from the physical requirements of reliability and continuity of service. The work of the sales force gives to the whole organization, from power house to line crews, to meter men, to accountants, to the supervising forces, a feeling of something doing, of forward movement, of life. No one can justifiably doze off in such an atmosphere.

This burden, if burden it is, does not rest on us alone. The electric manufacturers, spurred by competition among themselves, are never idle in the task of making better, more efficient equipment or of getting prices lower and lower. And in all our enthusiasm about what we have done with rate reductions, we must not forget that the major factor leading to the increased use of electricity in the home in the last two decades has been the invention of new apparatus requiring the use of electricity and the steady reduction in the price of such equipment. This has been the manufacturer's job and they have been able and effective allies.

And speaking of the manufacturers suggests a compelling reason for sales activity by the electric utilities in the fact that such a large part of our business is competitive. Many of the public think of our business as a pure monopoly, but we know that there are large and important limitations to this monopoly. It is true that, in order to prevent waste of capital through duplication of plant investment, the state regulation, under which most of our companies operate, gives the utility a monopoly in the electric service business. But the amount of business we *get* under that monopoly depends upon our success in selling our product in competition with others. All large power business and the larger commercial business are in constant and direct competition with what the customer believes he can do for himself and into the equation come prominently considerations of flexibility and dependability. The refrigeration, cooking and water heating business in the home is in direct competition with gas, a fact which the gas companies never allow our customers to forget. A rough computation based on these considerations indicates that 50 to 75 per cent of our business is strictly competitive. In a situation like that there should be little question of the necessity for constant aggressive sales effort not only to get new business but to keep what we have.

We know two things about our business. One, that even though we realize the competition is not fair, the constant pressure from government yardstick

(*Continued on page* 144)

What Price Prosperity?

By Walter D. Fuller
President, The Curtis Publishing Company

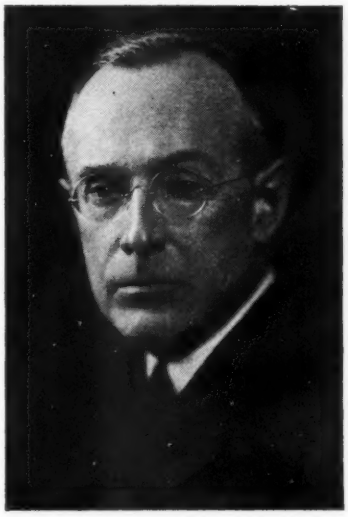
An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

I HOPE that you will not be disappointed if I pass up this opportunity to talk directly about advertising. That may be strange and unusual for one in the publishing business, but from the record, it seems to me that the electrical industry is pretty well acquainted with advertising, with markets, with media, with coverage and so forth. For many years advertising has been your servant and valuable ally in introducing new products to the American people, in expanding markets and increasing sales. This is true from the standpoint of the manufacturer of electrical appliances, as well as that of the utilities and the other distributors of electrical merchandise. Most of you are as familiar with the magic of "turnover" as you are with the hum of an electric motor.

Both you and I are more interested tonight in the possibilities of prosperity for all of us than we are in a narrow discussion of technical advertising. We are anxious to have healthier profits. You and I would like to have increased sales. Aren't we all interested in making this new decade of the 1940's, which has just opened, a really prosperous ten-year period?

Surely all of us want better business, increased sales and a real era of prosperity in this country. While these things are very closely related to the subject and use of advertising, I believe the most valuable information that I can bring to you is the detail of an interesting experience which I have had recently, which shows that the spark of prosperity is still high voltage in this country.

But first I would like to say that anyone from my company would feel especially at home here tonight with the leaders of the electrical industry. We have much in common. There is a "blood relationship" between our activities, if such things exist in the industrial world. We are the children of the same great American. Just as you trace the beginnings of your industry to the parenthood of Benjamin Franklin and the kite he flew in Philadelphia, so do we trace the founding of *The Saturday Evening Post*



MR. FULLER

to Franklin and his printing shop in Philadelphia.

But what we have in common goes much further than mere kinship. Our industries have marched side by side in the parade of progress, and now stand shoulder to shoulder in defense of real Americanism against the forces of reaction, who would "make America over" with their economy of scarcity, and who would turn the forward march of progress into a retreat.

The printing and advertising business could not have become such an important force for the development of America and the defense of our institutions without your assistance. Without the electrical industry and the developments it has made possible in power, engraving, typesetting, binding, as well as in office operations, the printing industry could never have grown to its present stature. Likewise, it would not have accomplished its growth if readers had been dependent upon kerosene lamps—the electric lamp is our greatest circulation promoter. My company's four-color presses, thanks to your contributions, today can take an almost endless stream of paper at one end and turn out millions of sets of multiple page magazine sections printed and folded at the other end in a continuous process.

The electrical grand-child of Benjamin Franklin has made an important contribution to our joint welfare, but the other grand-child, the one of printing and advertising, has enabled the electric industry to expand more easily and more rapidly. Knowing that there was a tremendous market which could be reached almost overnight and stimulated to buy, the publishers have found and nurtured that market, have made it economically available and thus have helped you to go forward with invention and with the production of new conveniences which have meant progress and happier living for everyone.

Working together, the electrical industry and advertising have equipped the homes of America with vacuum cleaners, electric irons, ironers, refrigerators, electrical ranges, washers, water heaters, roasters, small appliances, and the many other products by which the housewives have been freed from drudgery and American family life raised to a new high plane.

We hear today of the one-third of our population who are ill-clothed, ill-fed and ill-housed, as if that were an indictment instead of an evidence of progress. Let me point out that when Benjamin Franklin flew his kite and ran his printing press, probably 95 per cent of our population—then perhaps four million — measured by present day standards, were ill-clothed, ill-fed and ill-housed, but they were free men, prepared to carve their destiny and that of their families from the boundless opportunity that was America. Sixty years ago when Thomas Edison developed the electric light bulb the situation had improved, but there was still about two-thirds of American families who were ill-clothed, ill-fed and ill-housed. Today in 1940, we have come a long way over those 150 years and we have made much progress. We have

those today who unquestionably are ill-clothed, ill-fed and ill-housed, but it is a far smaller percentage than in the earlier years, and the cure for these remaining troubles is clearly the same medicine which has been so successful in the past—that is free rolling, honest business, with the brakes off and with real opportunity to expand.

Real liberalism, the liberalism of progressive, forward looking and thinking American businessmen — the liberalism most of us demonstrate every day in our business activity — has built this country during the last 150 years. This liberalism is still new and fresh in the world. It has made the greatest mark of progress in all history and has given America the highest standard of living ever enjoyed by any people. It has brought our country from a thin fringe of colonies along the Atlantic coast to a great and powerful nation of 130 million people.

Success has its great rewards, but also its headaches. Nothing has ever been accomplished which did not attract criticism. Failures always are ready to denounce success.

Franklin said, "'Tis hard for an empty bag to stand upright."

Destruction is far easier than construction. It takes years to build a business but sometimes it can be wrecked overnight by the winds of chance or the bigger winds of politics.

Progress of a generation can be wiped out by a single unwise law. Ill-advised actions by the uninformed or malicious can destroy jobs, opportunities and wealth. Ideas and initiative can be blacked out by a legislative raid. The critics have deluded the people into making bigness the sign of the "big bad wolf" when bigness often is the very essence of economic progress in research, employment and lower prices.

For eight years we have been in a cycle of destruction. Franklin's good advice that "God helps those that help themselves" has been blue penciled, until today some of us suspect that it reads, "Government helps those who help the administration."

We have strayed far from the principle laid down by Franklin when he advised:

"Righteousness or justice is undoubtedly—the surest foundation on which to erect and establish a new state. But there are two nobler virtues, industry and frugality, which tend more to increase the wealth, power and grandeur of the community than all others without them."

Instead of industry and frugality, the new reactionary philosophy has given us the highest national debt in our history. We have had spending, spending, spending.

May I point out the cold and painful fact that instead of increased wealth, power and grandeur this country has just ended the first ten years in all its history during which it has made no progress toward a higher standard of living.

Probably the only thing Franklin ever wrote with which the politicians of today would agree was his quotation of a French lady who said, "But I meet with nobody but myself that is always right."

The defenders of real Americanism have been few in number but they are growing. It has not been a popular pastime as you gentlemen know. And I may add that we know, too, because we have felt reverberations from the stand which our publications have taken in defense of a free America. The firing line is not a place for those who are squeamish or who are unwilling to make sacrifices. We have been telling the American people the truth. This is not politics. This is Americanism. Principles come higher than parties and defense of our country comes before all else. I think you will agree that the past actions of our publications, *The Saturday Evening Post*, the *Ladies' Home Journal*, and the *Country Gentleman*, speak louder than words and are the best criterion of what may be expected of them in the future.

May I point out that the portion of our press which is still free, uncontrolled, and courageous, together with such other uncontrolled means of general communication as remain, are our best hope that we shall continue as a free republic.

I think you will agree with me that such questioning of our economic system as has occurred is principally because we have failed to solve our problems of unemployment and taxation. As taxation grows, fed by the prevailing policy of spending; unemployment grows, too.

Today there are 10 million men and women more or less unemployed in this land of plenty, most of whom blame business for their plight. At present there are about 22 million persons on public assistance who are being told that relief is as noble as independence, that a dole is as satisfactory as a pay check. But there are about one hundred and thirty million people who are feeling the steadily increasing burden of taxation, taxation which grows as it produces more unemployment in the vicious cycle of taxation, unemployment and more taxation.

I raise the question that it is the responsibility of we American businessmen together — we who are the real liberal and progressive forces, who believe in initiative and incentive—to do everything possible to reverse the present tendency and to turn it into a movement from relief rolls to payrolls, by *finding* and *making;* profitable, logical ways for more employment and, at the same time, to generate a wave of independence among those now unemployed or on public assistance, so that the light of real Americanism may burn as brightly and hopefully in the future as in the past.

How can you do it, in face of excessive taxation, in spite of restrictions and legislative handicaps? There can be no standing still. Either we go forward or backward; either we can have more employment and march on our way to a happier and healthier nation, or we will have more idleness, more taxes and less prosperity for everyone.

Which do you choose?

If we businessmen find the answer to the problem of unemployment, as we can, then we will lead the march of progress on up the hill to a brighter and more glorious future for everyone.

More business makes more employment—more sales makes jobs. If we increase profits we hire more men. And additional workers become the customers of business, buying the things they want and need.

This is the time to raise our sales sights. A time to be more aggressive in our promotion and to tackle the future with more initiative. Most business men have dreams of expansion and development. If you gentlemen in the electrical industry can encourage the depression-shocked business men with whom you come in contact to go forward with their development programs you can build up a tremendous amount of activity and increase employment. If we get thousands of new lines added, new products marketed, new plant expansions underway and other programs for the future rolling we will be on our way to the curing of unemployment.

If you are skeptical about the opportunities that lie in the 1940's let me tell you what is happening in my home state of Pennsylvania, and my own experience there with a reemployment program.

A state is not so different from a business concern. Its customers are the people, the industries and business establishments within its borders. From them it gets its income through taxation. As a state's plants, stores and factories are more prosperous, the state also is more prosperous. The tax burden upon the people of the state rises or falls inversely as the amount of business within the state rises or falls.

You possibly may know that for four years up to March 1939, Pennsylvania's taxes rose alarmingly. There was a serious exodus of business from the state. One concern after another packed up and went elsewhere and unemployment increased at a rapid rate. The cost of public assistance rose from 7 million dollars in the 1931-32 fiscal year to 132 million dollars in the 1938-39 fiscal year.

Truly it was a crisis.

Experience in many other states is somewhat similar to that of Pennsylvania. In each of these states the cost of relief increased sharply and more and more people became idle, so that more and more taxes were placed on the backs of the people.

$194,846,109.00
in plant expansions
in one year!
There's a profit lesson for you in this decisive evidence of Industry's confidence in Pennsylvania!
Pennsylvania
where your business can expand

Everyone pays taxes and we are all concerned about the effect of taxes upon our business. But you gentlemen in the electric industry are even more vitally concerned than we who are in the printing, publishing and advertising business. If the taxes paid by The Curtis Publishing Company become too burdensome in Pennsylvania we can, if we must, move to some other locality. It would be a considerable inconvenience and would be done only as a last resort, but nevertheless we could do it. *So it is* with many other industrial establishments, which are the good customers of the local electrical companies. But can the Philadelphia Electric Company, or the Duquesne Light Company, or other utility companies in Pennsylvania move? They haven't a chance. They, in common with every other utility are going to prosper or fail in the same proportion as your community gets richer or poorer.

Pennsylvania made an official move last fall to find a businesslike solution for our problems of increasing taxation and unemployment. As a state, it decided to find the answer by simply doing more business. More business comes from more confidence and the state began encouraging business. We decided to go out and get more customers both for our state and for the business and industry within the state. The same sound American principles that will make a business healthy will make a state healthy and a nation happy and prosperous.

First, Pennsylvania's legislature a year ago established a Department of Commerce. That is the state's name for its "new business department." This department went out to sell Pennsylvania and Pennsylvania's advantages. It advertised what it had to sell. It sent salesmen out to get the business.

And it has gotten results that never would have been possible without such aggressive promotive efforts. It has definitely halted the exodus of industry. Not a single industry of any size left the state in 1939 compared with many big ones which moved out during the previous four or five years.

A summary recently completed shows that the amount being spent or scheduled for construction by industries in the state is now the largest for any state in the union. The figure is more than 194 million dollars. It is another indication that Pennsylvania is coming back industrially.

Does it pay!—

One company which recently moved into the state provided jobs for idle workers that effects a savings in relief costs about equal to the amount it will cost to operate the Department of Commerce for two years including appropriations for advertising, and that is only one case out of many.

Pennsylvania has advertised for more business and gotten it. In addition, there have been thousands of inquiries from interested companies, some of whom will move this year or the next. We are going to have more businesses to employ our idle men and women, many million more dollars are going to be brought to Pennsylvania and we ex-

pect that taxes will be reduced. If you question how this theory works in practice I will show you in some charts of what is happening in Pennsylvania.

Not only does Pennsylvania's sales program show results from the new Department of Commerce, but last November a program to mobilize jobs was launched in the state. I am state chairman of this movement and I believe it is the most realistic assault upon the forces of the depression that ever has been made anywhere. There are at least 10,000 volunteer businessmen enlisted in this movement to find sound and logical ways of increasing employment and thus of decreasing relief and taxation. It is a program initiated and carried out with the full cooperation of state government, so the results indicate what can be accomplished when business, government, labor and other constructive forces join hands to solve a common problem. And, you will be interested to know, the utility companies of Pennsylvania have played a major part in this program.

The charts I show are for Pennsylvania, but they are typical of the situation in most other states.

In Pennsylvania relief is financed entirely by the state. In some of your states this may not be the case, but, in any event, you and your customers are paying the cost in taxes of one kind or another and as a result you are suffering from lack of buying power in the community.

In Pennsylvania, the increased cost of government is almost entirely the increased cost of public assistance. Because public assistance needs had risen sharply in recent years the situation last October indicated that about $100,000,000 in additional taxes might be necessary in April of this year or before. Right now there is every reason to believe that these additional taxes have been deferred for a considerable time and that the amount has been greatly reduced.

The state figures show that from November 20 to January 20 this year, compared with the same period a year ago, there was an improvement in the public assistance situation in Pennsylvania of 149,961 persons. A year ago in this period 108,981 persons were added to the relief rolls. This year 40,981 persons came off, because of reemployment or for other reasons.

Right now, every time we can take 300 cases *off* relief in Pennsylvania for a year, we save the taxpayers about $100,000. This figure of 300 cases costing $100,000 a year is both higher and lower in other states. In New York, for example, the taxpayers save about $100,000 a year every time that about 200 cases come off relief.

The cost of relief in Pennsylvania has dropped from around $2,000,000 a week last summer to a little more than $1,400,000 at present.

How does the situation in Pennsylvania compare with other states?

Comparative figures which have just become available, cover general assistance cases for January in four other states. Taking January 1939 over December 1938 there was an increase of 10,091 new cases in Ohio, 14,643 in New York, 6822 in Massachusetts and 1741 in California. The increase in Pennsylvania was 23,735. That was last year. *This year* January of 1940 shows a *reduction* of 5624 cases in Pennsylvania, while all the other states showed increases, ranging from 1792 in Massachusetts to 19,070 in Ohio.

Another fact may be of significance. Penn State College's monthly survey of business conditions says that January business in the state was the best for that month since 1930. The gain in industrial activity over January 1939, amounted to 17.6 points or more than 25 per cent. It points out that "Pennsylvania business in January increased as against a decline nationally, and rose from December's levels." Among other things, electrical power production showed a sharp contra-seasonal expansion.

And for February the Federal Reserve Bank of Philadelphia reflects a favorable situation in Pennsylvania compared with the national decline. Measuring only factory employment the report says the number of wage earners was 10 per cent higher than a year ago and payrolls were 17 per cent higher.

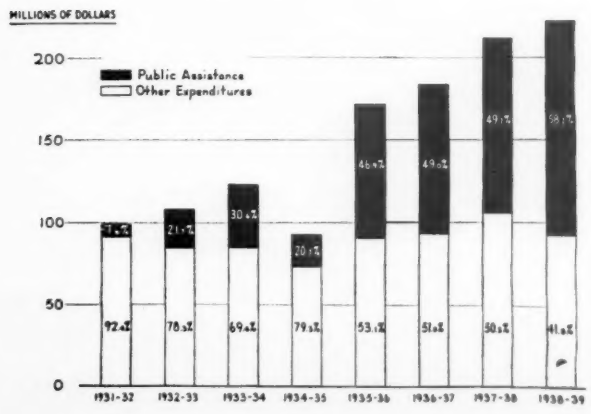
The Pennsylvania Bureau of Employment has just reported that: "The active file of job seekers totaled 421,567 at the end of the current month (Feb.) as compared with 951,242 at the end of February last year." Regarding job opportunities found, the report says that "the present volume is 44 per cent greater than the job openings filled during February last year."

That is the picture gentlemen. Isn't it a picture of what real promotive effort, including advertising and salesmanship, will do? Isn't it a picture

(*Continued on page* 136)

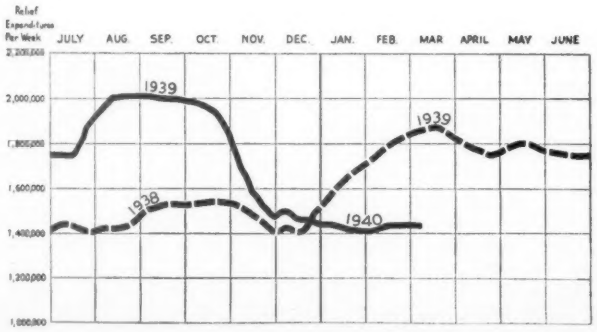
PERCENTAGE ANALYSIS OF PENNSYLVANIA'S EXPENDITURES

GENERAL FUND
JUNE 1, 1931 TO MAY 31, 1939



EXPENDITURES FOR PUBLIC ASSISTANCE

STATE OF PENNSYLVANIA
July 1, 1938 through February, 1940



The Bottle Neck in Distribution

By Carl M. Randel
Pennsylvania Power and Light Company

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

EVERYTHING begins with an idea. Constructive ideas augur for progress and progress comes as the result of change. Emerson said, "Progress is the activity of today and the assurance of tomorrow." To use an analogy, let's go back to a period when all sewing was done by hand, a method which had prevailed for centuries. Then one hundred years ago, Elias Howe, Jr., invented the sewing machine and changed the eye of the needle from the centuries old blunt end to the pointed end. The machine age was on . . . new opportunities appeared . . . progress came as the result of change.

And change is taking place in this industry of ours. We, too, have discovered a way of putting the eye of the needle on the pointed end and have developed a better and more satisfactory . . . highly effective and practical method . . . a simple, common sensible, good old American way of doing an important and basic job . . . working together . . . doing it in thorough organization style . . . cooperation in uniting the competitive forces of merchandising into one common objective to better serve the customer.

It is recognized that organization is the medium through which individuals can work together in groups more effectively than they could work alone. Working together as we are . . . what is our purpose from the utility viewpoint? What is the underlying motive behind the plan? You've guessed it. You're right. There is no other answer. The sale of kilowatt hours . . . kilowatt hours at a profit. Like in any other business where expansion is the chief aim, our big job is to inrcease the sales of that which we sell . . . kilowatt hours . . . and the sale of kilowatt hours has a direct relationship with the sales of appliances and utilization equipment.

In my work I come into contact with the personal problems of every type of business and industry. Rarely do I find a problem arising which could not be answered with a satisfactory increase in some kind of sales. To me that is significant. Therefore, it is quite natural for utilities and sales allies to cooperate in a united, creative selling program on appliances for a twofold purpose. First, to increase sales and profits for all cooperating sales allies. Second, to increase the consumption of kilowatt hours. Unfortunately, or rather I feel very fortunately, the path to successful Dealer Sales Development has not been sufficiently blazed to allow you or me to leisurely saunter over it to our desired goal. No one has seemingly been able to reduce the plan of action to a definite formula. It is not one of those operations that can be put on the modern progressive quantity production basis . . . at least not yet. Results are not turned out that way. There is too much human element involved. It's all human. There can be nothing mechanical about it.

MR. RANDEL

Before I get into a discussion of plans, policies and procedure as an expander of the so-called "bottle neck" in distribution, let's have a change of viewpoint. Lay down the microscope and pick up the telescope. It will give us all a longer and broader viewpoint. In reality, however, these changes do not come that fast. At least they did not and are not taking place that fast in the area served by us. The Dealer Sales Development Program of the Pennsylvania Power & Light Co. had its inception a decade ago, and growth and change . . . changes in the right direction . . . have been taking place ever since.

As we turn back the pages in the history of our progress, we come to a day late in the fall of 1930 when we held our first meeting with a group of dealers in one of our 10 division headquarters. For reasons best known to these representative dealers, they wanted to meet with members of our organization to discuss the common problems which exist in any area where an aggressive merchandizing policy is carried on by a progressive utility company.

They wanted to know How, What, When, Where, Why, and a lot of other reasons concerning our merchandising policy. You men know the kind of questions I'm referring to, particularly where misunderstandings exist. It was only natural. It is human nature to oppose the things we do not understand. At that meeting we caught a great vision of what could be accomplished in this new field of endeavor if we could just utilize a selling force waiting to work with us. Here was a towering giant of new manpower partially in the harness, restless and tugging with might and main. Sharp and alive, ready to go, just waiting for somebody to organize it and release the brakes to start it in the right direction. What an opportunity these forces presented.

Our cooperative plan began in a rather conservative style with the placing of one man, known as the dealer coordinator, in each of the company's 10 divisions. His duties were to keep in contact with the dealers, adjust their complaints and straighten out any misunderstandings. Above all, he was to keep away from our retail sales department. It sounds

foolish now, as we look back almost 10 years ago and realize how we, in the early stages because of inexperience, missed many of the advantages of a truly sincere cooperative plan. But we learned by experience, our own experience, because there were no other methods to guide us. We kept at it, making a change here and an addition there, depending upon conditions.

The achievements of the first five years of the sales development program suffered the usual growing pains, but we persevered knowing that our plans were fundamentally sound, the purpose constructive, the principles progressive and more important than that we knew down deep in our hearts that it was the only way to do a job which gave full sway to the application of our unlimited desire for a sincere, creative, balanced and aggressive merchandising selling policy.

We knew that all business relationships with sales allies in our territory were a matter of contacts . . . contacts of the right kind. We realized that if the reasons for and the results of these contacts were difficult to understand there would be friction, misunderstanding and other difficulties which underlie the fundamental problems of dealer relations.

We felt that the best interests of everyone concerned could be better served by promoting a volume of sales of all types of appliances through every conceivable worth while outlet, and in this way also better serve our customers. Therefore, we wove into the warp and woof of our sales development programs those sound principles which have carried through to the present day.

First, the plan had to be cooperative . . . cooperative not only from our viewpoint, but cooperative from the dealer's angle in that he will recognize the plans to be of sufficient value to himself to be worthy of his active cooperation. Unless cooperative programs have this dual golden thread woven into the very fabric, the cost which can run into large sums might better be saved. Our Dealer Sales Development Program incorporates no plans for buying or subsidizing dealer interest, because we are of the opinion that if we tried such methods, the price we offered for the dealers' cooperation could never be high enough to get it completely. True dealer cooperative spirit can never be purchased . . . it must be earned. When I say earned, I mean earned and earned the hard way.

The retailer's job, while not exactly the same as ours, is parallel to it and in no sense in opposition to it. The dealer really wants to become an important figure in the affairs of our business. He is always ready and willing to accept merchandising plans and ideas which he believes are helpful to him in his business. Experience has taught him what is best for him in his business and as a result he is quite capable of deciding the real value of any promotional and sales helps you may bring to him. Placing yourself in the position of the dealer when planning your promotions will be a tremendous value to you. More than that, it will change much of your thinking and planning. In any cooperative work it is well to recognize that one of the oldest axioms in business is the truest. It is not how good you make your sales development plans. It's how good your sales development plans make you.

Any cooperative program which you bring to the dealer must be sincere . . . sincere in policy and practice. You can't plan one method of doing a specific job for your organization and then bring the same idea with variations to the dealer and expect him to do a comparable job in the absence of all the stimulation and incentives with which your own program is replete. Sincerity means just what the word implies . . . sincerity in the truest sense . . . you must go all the way.

All the dealers, or I should say sales allies, know that we are doing an aggressive sales merchandising job and that we intend to continue to do so if all participants are to enjoy the maximum returns which this great industry of ours affords. They recognize this and are anxious that we continue. Early in 1938 we tried to get a satisfactory sales job done in two of our divisions without aggressive merchandising on our part, but we learned that not only did the results desired by the utility fail to accrue, but the sales by dealers actually declined and represented a consequent profit reduction. Our experience has been that creative selling will be employed by the cooperating sales allies in our territory in direct proportion to the degree to which the utility sales organization devotes itself to this basic selling job.

As the utility cannot deny its sales responsibility to its customers, it cannot forsake the responsibility of leadership in creative selling for even a temporary digression to low standard price and term selling. From the very inception of our Dealer Sales Development Program we believed that the keystone of successful dealer cooperation rested on aggressive, non-competitive utility merchandising to insure complete sales coverage and better service to all residential customers. And service to us means just one thing . . . complete service. The only thing we are concerned with is how can we make ourselves more useful to everyone.

To carry on an aggressive merchandising job the utility must be creative in all its efforts . . . creative both in sales promotion and in sales action. Much of the creative effort in our territory is carried on through various distributors' organizations. These distibutors are a progressive lot and we want to pay tribute to them for their splendid service and productive efforts which have added materially to the success of our sales development plans. The same true cooperative spirit existing between dealers and the utility prevails among the distributors and the manufacturers in their relationships with our organization.

There must be no diminishing effort in any Dealer Sales Development Program. To be successful it must be consistent. We must constantly think in terms of consolidating our gains. The success of one cooperative activity does not insure the success of the next one. Each one is a separate and distinctive operation and must establish its own record. In presenting them we know full well not to look for magic results for these reasons:

(1) No merchandising, advertising and selling program, regardless of how complete, will fit all your dealers without intelligent explanation and suggestion on your part.

(2) The more complete and specific the program is, the fewer it will fit without skillful adaptation.

(3) Improper presentation can ruin the best plan or program.

Early in our development program we introduced relatively few activities in any one year . . . and most of these were confined to the major items such as refrigerators, ranges, water heaters and laundry equipment. In 1939 we conducted "Appliance of the Month" campaigns, along with major service activities on cooking, refrigeration and water heating, which the dealers and distributors tell us have provided them with a monthly objective in balanced appliance selling. The increase in dealer sales as a result of these special appliance promotional activities have proven the soundness of the plan . . . at times the sales reached surge proportions.

In January of this year we introduced the "Opening Wedge," a prospect de-

velopment plan for use by the dealers and our own organization as well. We intended that it would do what the very name implies . . . to crowd in among opposing or obstructing objects . . . and we wanted to get it in early to develop prospects before the busy buying season arrived when there would be no time for adequate prospect development. For many, the plan has changed the customary red figures for the first 90 days to black, because sales of both minor and major appliances were made and buying action stimulated earlier than usual due to this unique program. This type of activity truly typifies the creative idea behind our programs.

Early in 1939 a test activity on Light Conditioning, which was conducted in our territory by one of the manufacturers and then in only three of our 10 divisions, has become the basis for a nation-wide promotion. All participants profited by this test activity which meant much to our creative sales development program.

In the fall we followed up the success of the spring trial promotion with a well planned activity for the entire system. While we do not merchandise IES lamps, modernizers or lighting fixtures of any kind, we were so thoroughly convinced of the tremendous possibilities for the increased sales of kwhr through the sales of modern light conditioning appliances that we installed complete light conditioning centers and listed the names of the local dealers selling them, in every one of our 62 showrooms. We displayed every type of modern light conditioning appliance and trained our floor sales personnel to effectively demonstrate them. As prospects indicated their interest in our displays and demonstrations, we provided each one with a printed list of the cooperating retailers where the appliances could be purchased. On this same slip was an introductory message to the dealers indicating the particular model or models the prospect was interested in. We kept a copy of this record which showed the name and address of the prospect, and several days later, one of our Home Service Representatives called at the home of the prospect to inquire how she liked the new lighting appliance which she expressed a desire for at our showrooms. In this way we were able to keep an accurate check on the effectiveness of our personal selling efforts on the showroom floors.

To present this lighting activity to the dealers, we held meetings in all our divisions and outlined the program. The activity carried right on through to the holiday buying season when we knew thousands of these lighting appliances would be purchased. With the idea of consolidating our gains we followed this with a new activity early this year when we introduced "Seeing Is Believing," which was the third step in our cooperative Light Conditioning campaign. In the previous activities we recommended that all participating dealers avail themselves of the manufacturers' promotions and secure the Light Conditioning centers which were included in the introductory offers. You are all familiar with the type I refer to . . . a cardboard demonstration affair, but it was effective and a step in the right direction. This year, however, we recommended to our cooperating sales allies the installation of permanent light conditioning centers as a progressive and practical means of developing increased sales of light conditioning appliances at a much more rapid pace. We promised to specifically mention in our cooperative newspaper advertising the name of any dealer who installed in his store a permanent light conditioning center. In our Sales Stimulator or prospectus we illustrated several pages of the types which would meet our specifications and listed the names of the manufacturers with their prices for the various centers . . . the lowest price being $9.15.

When we introduced this activity in February we set our goal at a minimum of 200 permanent light conditioning centers. Today, with the activity less than 30 days old we have exceeded our goal and new centers are being added every day. There is the outstanding example of one of our cooperating sales allies, a hardware dealer, who spent $156.00 for his light conditioning center. He had it built specially to match the other attractive furnishings in his modernized store.

We quote our good friend, Mr. Freeman Barnes, "This is only the beginning," and our next light conditioning activity which will follow soon after the present one ends will be the finest and most complete we have ever undertaken.

Throughout our entire organization, each individual, regardless of his job, realizes full well that he has a definite measure of responsibility in the success of our coordination plans and sales development work. Our folks have caught a new vision . . . a new spirit . . . the idea and realization that a better job can be done by working together. To accomplish this we have had to make changes . . . plan our work differently . . . include many new features. Take the matter of compensation to our residential sales force.

At one time they were paid a fixed salary plus a standard sales commission on their individual production. Later this was changed to a fixed salary plus a load-building bonus which was earned only on their own sales production. Again this was changed. We now compensate our sales representatives on an all-service selling basis which includes compensation on sales by cooperating sales allies. Today we pay our sales representative when he has located and developed a prospect, and when either he or the cooperating sales ally has culminated the sale with the installation of the major appliance in the customer's home. We find it is not difficult to build a simple method to determine whether the utility sales representative has contributed to the sale to the extent that he should be compensated. In 1939 we paid compensation to our sales representatives on about 8 per cent of dealer refrigeration sales, 40 per cent of dealer range sales, and 80 per cent of dealer electric water heater sales.

Each sales representative carries a full quota of appliance services for the market assigned to him in his territory. He is given full credit and his overall performance is judged on the total new revenue built in his territory through his direct sales efforts, and his efforts in cooperating with the dealers selling to his customers. The change in our plan of compensation has done much to increase the effectiveness of work.

This matter of sincerity does not end with the salesman, but it carries on to every field executive, supervisor and every other representative who must be cooperative and non-competitive daily. The important test of any cooperative program is in the customer's living room and kitchen where the utility and dealer sales representative often meet. It also applies to sales negotiations on the utility's showroom floor where the cooperating retailer's representative is not present. A failure at any of these locations, as well as one inconsistency between the merchandising policy and the Dealer Sales Development Program will do enough harm to offset for a long time the good of hundreds of cooperative customer contacts, or all of the remaining

good points of the utility's cooperative policy.

When we talk about a cooperative policy it is our one and only policy for everybody. We do not have one plan of action for the dealers' organization and another for our own company. It is so important that we all recognize this. In the conduct of our merchandising policy we never have pricing practices which do not include full merchandise profit to which both the dealer and ourselves are entitled. Premiums, trade-ins, or other forms of price cutting, unless the same offer is available to the dealer, are never given consideration. Under certain conditions some form of incentive may be used to stimulate buying, but only when it is sufficiently worth while to justify the utility making it available to the dealers as to its own sales representatives.

Periodically studies are made of all the national finance plans and when necessary our contract and terms are changed to correspond with them. We adhere to these fixed schedules and make no attempt to meet local finance plans with lower rates offered by the larger stores who do their own financing, or the dealers who do a large part of their financing through local banks.

The help of our Home Service Representatives is available constantly to all cooperating sales allies for purposes of demonstrating in the home any major appliances sold by them or for demonstrations in stores, exhibits and home parties. Home lighting demonstrations have become a very important part of their services to our customers.

Then there is the modern kitchen planning section of the Sales Promotion and Advertising Department. Cooperating sales allies avail themselves of this planning service constantly, and hundreds of plus sales for major appliances and auxiliary kitchen equipment and furnishings can be attributed to this very fine selling tool.

There is never anything in any of our promotions that is not in the strictest sense in keeping with the dictates of good, sound business practices. We have never said to our cooperating sales allies that this is the best way to do it, but we do remind them that it is the best way that we, as a result of our combined experiences, know how to do the job. Through our experiences we saw in our Dealer Sales Development Program what we thought was a better way to improve the method of bringing service and satisfaction to the customer. Sure there were objections . . . who ever did anything worth while without them? There will always be those who say they can't do it—and they're usually right. We believe it can be done. We believe that we are on the right track. But the job cannot be done in a year or two years. We have been at it for 10 years and while every step of the way has been marked with progress, we feel that we are just in the midst of a program which today still calls for years and years of consistent, constructive, and creative effort.

Let me give you a brief picture of what goes on behind the scenes in connection with the planning and launching of one of our cooperative programs. First, there is the development of the idea which takes days and weeks of planning by all the members of the department, and the work includes market analysis, contacts with manufacturers' representatives, some field testing for further ideas, and many "round tables." All of this takes place as much as three to six months in advance. We want to be certain that we have incorporated every available sales and advertising tool offered in the industry. Many of the advertising and promotional helps of the Modern Kitchen Bureau have been used in our programs. Then, too, we prepare our own window and store display materials, printed literature, automobile bumper signs and many other promotional helps both for our organization and all sales allies. All of these are furnished gratis to our cooperating sales allies.

When the finished campaign is ready for introduction into the field, members of the executive staff are divided into two groups. I want you to get this picture in your mind to appreciate the importance attached to the presentation. We have 10 division headquarters strategically located in the 10,000 square miles served by the company. In this area there are 62 districts, each one with a display room.

The announcement meetings for the company are always held at division headquarters and our entire sales and executive supervisory staff from all the districts in that division are called in to attend the meeting. This plan of action saves time and we can cover the entire system in one week. The following week the same groups from the General Office start out to hold planned meetings for the dealers. It is impossible to get many of the dealers to meetings during the day, so the meetings are held at night. Futhermore, as some of the divisions are more than 80 miles across from one end to the other, it is necessary for us to hold many district meetings. Two to three weeks' time is required to present a major sales activity to the entire dealer organization.

At these meetings every phase of the activity is presented, and plans are discussed for increasing sales efficiency and how to apply the principles of the activity to produce the greatest and most satisfactory results. The campaign prospectus, advertising and sales promotion helps are distributed at these meetings. Those dealers who fail to attend the meetings are personally contacted a day or two later.

All campaign activities have incorporated in them some form of prize awards based upon overall promotional performance and sales accomplishment.

After the introductory meetings, should any dealer request a special meeting for his individual organization, this service is extended regardless of the number of employees in the store.

Frequently throughout the year special sales training clinics are held regularly for the benefit of individual dealer organizations in every division of the company. It is through this intimate association with all our dealers that we have grown to know much about their individual operations. There is a bond of fellowship existing there which was not developed over night. We have won their confidence and they always feel free to come to us for help whenever they need it. Frequently our salesmen are called in by the dealer to help in a selling job. Gladly they go, but make no attempt to sell the specific merchandise of the dealer. Our man is there to sell the service and will offer no recommendations for the particular make of product.

This intimate association with our dealers has helped us to expand the value of our Monthly Interchange of Sales Information which calls for a complete monthly report from every dealer, listing every appliance (minor and major) sold by him during the previous month. In special campaigns we secure a report of this kind each week during the activity. In addition to reporting the total sales of each appliance, the dealers also give us the names and addresses of the purchasers of all major appliances for our records. This sales information without brand names is then compiled for all districts in each division, and a printed report is issued to each cooperating retailer.

This gives him the opportunity to compare his individual production with the results for the entire division. The dealers look for their monthly recapitulation sales report from us with a great deal of interest.

Today we have approximately 1200 dealers listed in our active files and all but five of them are cooperating and giving us this sales information. These reports are gathered by various members of our supervisory staff who assist the dealer coordinators in each division. No calls are ever made upon dealers for the specific purpose of securing sales reports which come to us voluntarily. Every representative in our organization who calls upon a dealer does so for the express purpose of bringing to him some constructive idea or plan which will be helpful to him in his business.

Press proofs of all our newspaper advertising are delivered one week to 10 days in advance of publication to the dealer personally by a representative of our organization. In this way we have been able to stimulate the dealer to tie in with our company ads. It is not an uncommon occurrence to find as many as 17 dealers tied in with their own advertising on the same page or pages with ours. In some of our divisions the dealers have cooperated to the point where they purchase an entire page featuring a specific appliance and which carries the signatures of the cooperating dealers at the bottom. That's what we call real cooperation in newspaper advertising.

When you get all your sales allies to use the right kind of advertising, the proper display materials and use them effectively, they are your greatest sales aids. They can be made the means of performing these functions for you:

(1) Stimulating and maintaining enthusiasm among those whose cooperation is so essential and necessary in the distribution and retailing of appliances.

(2) Creating and expanding the existing demand for appliances by well organized cooperative promotions.

(3) Conditioning the market so that appliances will have a more ready acceptance among prospective buyers. To resell to present users.

(4) Helping the utility industry to secure greater kilowatt hour sales by creating additional sales of appliances.

In many of our divisions the dealers get together and hold Modern Living Exhibits. As many as 10 and 12 are held in a year. One was just held in Pottsville two weeks ago at which time nothing but modern living appliances were shown. Another will be held in Allentown next week and this will be one of the same kind. These are not real estate or building shows, but exclusively modern appliance exhibits. Attendance at these shows has been remarkable. Allentown with a population of slightly less than 100,000 has had as many as 30,000 in attendance.

Earlier I said we could never hope to do this job alone. Have you ever stopped to consider the possible size of your organization if you attempted to do it alone? And when you developed it to this size, could you economically and profitably maintain it? Could you control it and what could you guarantee in the way of results? Could you show a profit? Could your men sell everyone with whom they came in contact? Would they make all the sales? Would your men work as intensely to produce sales as the dealer who is in business for himself and whose success in business depends upon the sales he makes?

Here is a quick summary of the progress made in our Dealer Sales Development Program during the past five years. These figures, representing sales made by dealers only, are based upon our present plan of reporting and it is a real pleasure to review them with you.

	1935	1936	1937	1938	1939
Electric Ranges	528	829	2,106	2,315	3,701
Domestic Refrigerators	11,100	14,924	18,872	15,505	19,781
Electric Water Heaters	95	129	312	327	456
General Use Appliances	92,957	148,301	166,299	262,294	294,597

Here is another interesting picture which shows the increases in the percentage of the total business done by dealers in these same years.

	1935	1936	1937	1938	1939
Electric Ranges	20.1	21.2	42.8	60.3	73.4
Domestic Refrigerators	77.8	80.6	84.1	87.4	89.1
Electric Water Heaters	13.3	14.2	26.7	46.8	60.7
General Use Appliances	80.2	81.8	86.4	91.1	91.1

These increases have not come from the dealers' success in taking all the business formerly done by the utility. I remind you that the utility's total merchandising business for 1939 is ahead of 1938, and only about 20 per cent below the highest year in merchandise figures in the past 12 years. The increases are explained in part by an increase in the number of dealers actively selling electric appliances who have been influenced, we hope, in part by the sincerity and completeness of our Dealer Cooperative Program, but largely by the improved effectiveness of their sales efforts in close cooperation with our program, resulting in a sales increase of 21 per cent in 1939 over 1938 in combined dealer and company sales of electric and gas appliances. In 1939 our own sales costs were reduced 16 per cent.

Perhaps you would be interested in the number of dealers, in the various classifications, for 1935 and 1939. Here they are:

	1935	1939
Department Stores	35	40
Furniture Stores	75	98
Hardware Stores	44	115
Specialty Appliance Stores	130	239
Plumbers	40	86
Contractors	140	295
Miscellaneous Stores (Radio, Variety, 5 & 10's, Drug, Jewelry, General, Auto Accessory)	75	312
Total	539	1,185

This comparison shows an increase of over 600 dealers who are considered to be active in the sale of electric or gas consuming appliances. There certainly have not been, over a period of the past four years, 600 new retail establishments entering business in the territory we serve, but the manufacturers and distributors have been successful in presenting the profit opportunities of the appliance business under the Dealer Cooperative Program in effect in this territory to the point where there are 600 more retailers advertising, promoting and selling, in daily contact, the story of "Better Living with Modern Electric and Gas Appliances" to our customers, which we consider an end very much to be desired.

Today new pages are being written into the history of our Dealer Sales Development Program. Not a day goes by, however, but what we have an experience which adds another step in our march of progress. These experiences are not merely of passing interest but they represent definite results from the application of the principles underlying the thoroughness with which we have carried every step of this program forward. All this has required time, money and effort. Here is a real opportunity. If you don't do much about it you will

lose, but you lose nothing compared to what the industry as a whole will lose because of your apathy. Don't let traditions transcend your trust in the true practical approach to a new and better way of doing things.

The results enjoyed both by the company and the cooperating retailers did not just happen. There are definite reasons for everything that we have done. We had to learn through experience, and these experiences have aided us in improving our methods and guiding us in the path of progress.

If we can resist the temptation to slow down and do our utmost to speed up with the aid of all sales allies, the industry will maintain its leadership and continue to go forward with certitude. We can do a successful job if we plan to earn our way. Don't hesitate to place the full force of your company's creative sales and promotional resources into the hands of your cooperating sales allies so that they, too, can do a better job, improve the quality of their selling, increase their sales, save you money and make your job easier. If you do this, you have earned the right to expect that your cooperative dealer sales development plans will be successful and productive.

There are no patents on smart merchandising and neither are there tricks to permanent success. You must win by merit . . . earn your way.

Providence has hidden a wonderful charm in difficult undertakings to be appreciated only by those who dare to grapple with them. This means working together closely to consolidate the gains and to aspire to even greater accomplishments in the future.

Are the dealers ready? The answer is yes! Why, that bottle neck in distribution is as wide open as an army soup kettle. Let the dealers put into it everything they have and we'll pour into it everything we have . . . then we'll find the dealers ready . . . because we've helped them . . . we've made them ready.

What Price Prosperity

(*Continued from page* 130)

which shows that the way out of the depression lies in ways and means to *provide more employment* instead of fewer jobs? Surely it is a picture of hope and opportunity for all of us.

The Job Mobilization Program in Pennsylvania has stimulated more business. It is a selling drive, a campaign to sell business upon its opportunities. It is a program based upon the the magic of turnover. Whatever success it has had has been due to the fact that businessmen have seized their opportunities and gone ahead with more aggressive promotion campaigns. They have started new things and they have put more drive into their sales and been determined to get more business by every legitimate means. Plant maintenance deferred during the long years of depression has been gotten underway and that has increased employment or sustained employment during slack seasons. A home modernization drive is going full blast and putting thousands back to work as well as increasing activity in these fields. Plant construction programs have been pushed forward from the indefinite future into the present. In this the electric industry has been a leader. The Job Mobilization headquarters has served as a clearing house for practical employment ideas which have worked in one section but could otherwise only become known in another locality by chance. Retraining of displaced workers for new jobs and the training of young men for employment have been furthered. There have been hundreds of ways in which reemployment has been stimulated throughout the state. And the stimulus will continue long after the present temporary program is absorbed into some permanent set up.

If anything has been proved by the fact that the state headquarters at Harrisburg has a record to date of 37,500 developed from this program, it is that there *is* a way to increase employment and to relieve relief if businessmen will tackle these Siamese twin problems with the same initiative and ingenuity they show in their own businesses.

We cannot wait longer for government or politicians to do the job. We know that they have no cure. The best they have offered after eight years of labor is a little aspirin such as WPA and AAA for the economic headache.

Opportunity is all about us, in the electrical industry as elsewhere. For instance, a study of the Consumer Purchase Survey of the U. S. Government recently completed by the Commercial Research Division of The Curtis Publishing Company shows that more than 35 per cent of the families in the top quarter of the income brackets do not own a mechanical refrigerator. The study also shows about 50 per cent of all the families in the top half of the income group are not owners of mechanical refrigeration. Other studies our research men have made, show there is a tremendous market among those with above median incomes, who *have* the means to buy the goods you sell. Here then is a real market worthy of additional effort.

The idea of "market opportunity" is needed to replace the defeatist attitude of market saturation. The facts indicated by our study are that people who have been users of electrical appliances are the best market, because of the possibilities that exist among those who have the funds to satisfy their wants and needs.

We have behind us ten years of depression, discouragement and futility. We have ahead of us a new decade, with promise and opportunity to stir the imagination. Ahead we have the prospect of better incomes for everyone, of progress in solving our problems of unemployment and taxation, of more value for each dollar spent and far more happiness for each and every American.

In closing, may I repeat that we *can* have prosperity, higher incomes; less taxes and we can have our dollars go farther if we just want such a situation badly enough and if we will all work together towards that end.

I wish you a most prosperous decade of the 1940's.

Recent E.E.I. Publications

Methods of Measuring Radio Noise—1940 E.E.I. Pub. G-9. A report of the Joint Coordination Committee on Radio Reception of EEI, NEMA and RMA, 10 pages. Price 20¢ to members and their employees; 50¢ to nonmembers in the U.S.A. and 60¢ to foreign countries.

THIS report contains the recommendations of the Joint Coordination Committee on Radio Reception of EEI, NEMA and RMA as to the nature, essential characteristics and performance of a meter for the measurement of radio noise. It further gives detailed descriptions of recommended practices in the use of the meter for measuring directly radio noise from low and high voltage apparatus, for making radio noise measurements along overhead lines, for determining broadcast field strengths, and for collecting data for the establishment of radio noise standards.

Know Your Industrial Customer

By R. E. Fisher

Vice-President in Charge of Public Relations and Sales, Pacific Gas & Electric Company

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

I AM glad to talk about "Know Your Industrial Customer" because they are the backbone of the utility business. In our company industrial power customers represent less than 4 per cent of all customers served, yet they use over 40 per cent of kwhr sold. These important customers are located over our area of 89,000 square miles that we serve, for which reason the matter of personal contacts and knowing them is a serious problem.

We, in the utility business should be cognizant of developments and definite trends in industry. The progress that has been made by industry is significant. The first real impetus to industrial progress came from the application of steam power 150 years ago. Modern industrial development has been accelerated with the use of electric power with the result that during the past 50 years greater advances in industrial practices have been made than during all of the previous centuries.

In many industries there has already been definite progress in the introduction of recent laboratory achievements featuring the use of electricity to a greater or less degree. It is now the boast of the food industry that their product is untouched by human hands. Other industries point with pride to their use of air conditioning in turning out a better product and the application of high standards of illumination to obtain more efficient as well as safe working conditions.

We are still in the beginning of a great industrial era. Current disclosures in the fields of science, research and human engineering strongly support the prediction that the next decade will witness phenomenal industrial developments that will dwarf all of those in the past.

The mass production of quality products at lower prices will create a volume of wealth that will usher in new high levels in our standard of living. A Nation's wealth consists of the services it produces. America with but 7 per cent of the world's population has produced and owns over one-half of the world's wealth measured in terms of the services

MR. FISHER

and things we produce, and we have acquired a standard of living higher than any other nation. The utility has shared with its industrial customers in bringing about a higher standard of living by making available a better product or service at a lower cost. This is a tribute to the American system of business. There are many problems, however, that the utility shares with industry in general. These common problems make it paramount that we maintain mutual confidence through understanding.

The importance of personal contact cannot be over-emphasized. Understanding develops confidence and begets friendship. Notwithstanding the many problems that we have in common with our industrial customers and our mutual concern about many current economic issues, we cannot hope to have their confidence and regard for our business without developing a personal acquaintance and understanding.

Periodic contacts with industrial customers on a personalized basis are fundamental. Progressive business institutions such as banks and other organizations have demonstrated the advantages of personal contacts with customers. Why should we of the electric industry be prone to sit in our office and be satisfied with the results of only routine contacts by our field organization? It is not sufficient that we meet our industrial customers at luncheon clubs or social gatherings. It is time that we put on our hat and called upon the industrial customer at his office or plant and thanked him for his business. The local utility executive is the one who should make these personalized contacts. He need not be an expert on rates and power application but he can take a sincere interest in the customer's business and his problem and at least let him know we appreciate his business.

Inasmuch as a multiple number of contacts are made by utility representatives with industrial customers, it is highly desirable that these be coordinated. The routine contacts ordinarily made are with operating or maintenance personnel but occasionally with the management. The utility executive in programming his personal call on the management of industrial customers should have available a digest of the utility's business transactions with the customer. These systematic contacts can be made most profitable if there is available for reference purposes a record of facts pertinent to the utility's business with the industrial customer.

A record file disclosing Who's Who among the personnel and what the situation is relative to power service should be maintained for each large industrial customer. Such a record can be set up on a history card and the first item should show the management personnel, including local management as well as absentee management for those industrial customers that are branches of a national organization. The operating and maintenance personnel should be listed as well as the name of the customer's consulting engineer, if any is retained. The record should next provide for a tabulation of the electric load and equipment used including utility power, competitive power if any, lighting conditions, the use of industrial electric heating, or air con-

ditioning equipment. A notation on the card should show the utility's rate schedules in effect and the amount of power usage on a monthly or annual basis. If the utility has made a rate analysis for the customer, reference to this should be indicated. Another item that should be included is a record of the industrial equipment dealers or electrical contractors who ordinarily sell equipment to, or do installation and wiring work for the industrial customer. It is also desirable that the card provide a notation about major complaints, if any, and their disposition. Our company has developed a type of card covering most of the items referred to; we call this card our Business Development Analysis card. It is maintained by our commercial and industrial salesmen who are required to make an average of ten survey calls per week on commercial and industrial customers. These contacts are made as creative business development surveys and are in addition to work with current prospects.

We have an opportunity as well as a responsibility to the electric industry in serving its industrial customers. The opportunity to develop new business is ours if we take the proper steps to electrify the mechanized modernization processes that will be adopted.

There is a possibility of tripling our present industrial and commercial lighting load with the next few years. Present standards of industrial illumination require a minimum of 30 f.c. for most profitable and economical operation. In attempting to obtain such levels of illumination, it is unfortunate that the capacity of the wiring in many plants is woefully inadequate. To secure these higher levels of illumination, most economically, means providing wiring capacity for a consumption of at least 6 watts per sq. ft. Several schemes are available for increasing the capacity of the existing wiring system without a complete rewiring job. The utility should advise on these and cooperate with the customer's engineer or qualified electrical contractor in the formulation of a plan of action.

The solution of commercial and industrial lighting problems is already being influenced by the use of fluorescent lighting. This situation makes it doubly important that the utility render a lighting service to its industrial customers and advise them on the correct installation of proper lighting equipment. Our company has established a definite policy of requiring power factor correction of fluorescent lighting installations. This situation is one that will require continued close attention by the utility to obtain the desired power factor correction and faster good lighting installations.

Industrial electric heating applications and the use of modern air conditioning equipment by industrial customers offer to the utility worthwhile load development opportunities providing such installations are properly engineered. The sales promotional work that is rendered as a part of the utilization advisory service should emphasize how such modern electrical equipment makes possible lower production cost, better quality control, continuity of manufacture and better satisfied workers.

Of no less importance than the development of new business is the retention of existing business or the replacement of competitive power sources. If we are to build business in this industrial field, it is our duty to be just as zealous in our effort to properly serve them, as if we had a hundred competitors. We have adequate capacity, facilities, and ability to render a dependable and superior service, but it is up to us to develop the recognition of this by industrial customers if we are to cope with competition.

Competition from other sources of power will likely cause the utility more concern than heretofore. We have already experienced the effect of highly efficient steam generating plants, especially among those industrial customers where heat balances are possible. We are now confronted with the possible use of internal combustion engines and this competition will definitely be increasingly potent, due to a number of factors. There has been a definite improvement in the design and efficiency of Diesel engines and at the same time the selling price of such installations has been reduced. There is increased activity on the part of leading manufacturers and wider dealer distribution, with a selling program predicated upon sounder engineering than in the past. In addition, there has been made available liberal plans of financing installations with guaranteed maintenance contracts.

The extent to which we may serve our industrial customers for their present and future requirements is dependent, however, on our attitude towards this business. Any power contract or rate application that does not recognize the economics of the customer's operation so that he can gain every benefit to aid him in the success of his enterprise, is on weak ground and will not stand. Many of our industrial customers are uninformed regarding the nature of their electrical load, how it is measured and the basis on which the charges are figured.

It is unfortunate that complicated and confusing optional rate schedules continue to a greater or less degree. Simplification and elimination of unnecessary schedules is essential. Our company for several years has worked to the end of simplifying schedules, especially those rates applicable to large groups of customers. Our objectives have included a minimum number of surveys or policing of equipment used by these customers; the use of one meter for all services to the same customer at the same location, and uniformity as between localities and for the same class of power service.

The voluntary analysis of power accounts for industrial customers is one service a utility can render that is tangible evidence of a desire to serve the customer. Our company maintains a program of voluntarily rendering an electric rate advisory service. This service is normally organized on a bi-annual basis and applies to all commercial and industrial customers numbering approximately 25,000 accounts where optional rates are involved. Changes in operating conditions and the usage characteristics of the customer's account are the principal reasons why this service is necessary on a periodic basis. At the time new rate reductions or new schedules are established by the company, it is then necessary and advisable to modify the bi-annual rate advisory service and review all accounts in order that the customer may be advised of savings possible under the new or changed schedules. Commercial and industrial customers in our territory enjoy a saving of from $50,000 to $90,000 a year as a result of the company's voluntary rate advisory service.

The utility engineers should point out other possible savings that could be effected by correction of power factor, changes in wiring or other operating conditions. The larger industrial customers generally have their own engineers to study and act upon our suggestions. In other cases we recommend that the customer retain the services of a qualified engineer to analyze his specific situation with the understanding we will be glad to cooperate. It has been our experi-

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Meeting Obstacles in Building Refrigeration Load

By Austin Monty
Merchandise Manager, Philadelphia Electric Company

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

THERE are two broad classifications into which the future development of the refrigeration load naturally divides itself: the problem of sales to new users, and the replacement market.

The problem of increasing the present saturation is clearly shown by a glance at the figures. A recent article in Air Conditioning and Refrigeration News estimates refrigeration saturation in the United States at 56.2 per cent as of January 1, 1940. This estimate is based on 24,451,243 wired homes and 13,740,000 refrigerators in service.

From this it would appear that there is an unsold market comprising these families in the lower 43.8 per cent of the income classification. However, if we are to believe a recent Government Consumers' Purchase Survey which shows that 75 per cent of all major electrical appliances are bought by families in the upper half and 25 per cent by families in the lower half of the income classification; then the upper 14 per cent of the lower half of the income group has already been sold and we are left with market possibilities among the lower 36 per cent.

The maximum income of families in this lower 36 per cent of the income classification, according to a study by National Resources Committee,* is less than $1,000 per year, and is made up as follows:

Income Group	*% Total Families*
$750 - 1000	9
500 - 750	13
250 - 500	10
Under $250	4

If we disregard the Consumers' Purchase Survey and assume that the unsold market is in the lower 43.8 per cent of the income classification, we find that the maximum income of these families is $1,250 per year or less, made up as follows:

Income Group	*% Total Families*
$1000 - 1250	2
750 - 1000	15
500 - 750	13
250 - 500	10
Under $250	4

*Report on "Consumer Incomes in the U. S.—their distribution in 1935-36."

MR. MONTY

If the above statistics of saturation and income are correct, it is at once apparent that the expansion of refrigeration saturation is dependent upon two factors—low prices, long terms, or both.

The substantially lower prices recently provided by the manufacturers will be extremely helpful in securing additional saturation, but if the statistics can be trusted, something more is needed to reach the unsold market.

In any consideration of longer payment terms, the size of the monthly payment is of paramount importance. Large down payments and large monthly payments are out of the question for such low income customers.

I am not an advocate of long terms. I merely point out the problem and the obvious solution. Furthermore, I have an open mind on the economics of long-term financing. I cannot refrain from saying, however, that our research on this subject does not lead to the conclusions expressed by opponents of long-term financing. We have found from actual experience that low income customers, if sold at terms which they can afford, meet their obligations promptly and losses from this class of business are substantially less than those incurred from normal financing arrangements. To illustrate, I would like to highlight our experience with a recent five-year electric refrigeration financing plan. We did not wish to engage in a five-year installment plan, but were forced to do so to meet competition.

This financing plan was made available in Philadelphia on May 12, 1939, through the cooperation of a local bank, distributors, manufacturers, an insurance company and Philadelphia Electric Company.

The introduction of the five-year plan had an immediate stimulating effect on volume. Sales, which were 18 per cent below 1938 in April (whereas national averages for that month were 24 per cent up), jumped to 91 per cent ahead in May and 158 per cent ahead in June. During the five month period in which the plan was in effect, sales were 74 per cent ahead of 1938. Gas refrigerator sales decreased from 19.8 per cent of total sales in April to only 11.7 per cent of total sales in September.

The electric refrigeration five-year financing plan, having accomplished its primary purpose, was discontinued by the mutual consent of all parties concerned in September, 1939. While it was highly successful from the standpoint of volume, the question of the economics of the plan remains unanswered. Is five-year paper economically sound or will reverts and collection expense reach prohibitive proportions?

Philadelphia Electric Company is attempting to find the answer to this question. Our refrigeration sales obtained during the activity are segregated and records are being maintained to determine the ultimate number of reverts. To provide an accurate measure of comparison, we studied revert records in connection with the terms of not more than 36 months which had been in effect for the past several years, and found that sales made during the year 1935 had the lowest revert record. Accordingly 1935 experience is set up as a yardstick for comparative purposes.

Furthermore it so happens that 1935 was neither a particularly bad nor good year economically.

To provide, as nearly as possible, identical conditions, sales made during the months of May to September, 1935, were analyzed and the record of reverts was accumulated by months. The comparative results are as follows:

Reverts to and including February, 1940 on sales made during the period of May to September, 1939 are 7.1 per cent of the total units sold during that period.

Reverts of 1935 sales for comparable period were 9.9 per cent.

In other words, 1939 reverts are 28 per cent less than those experienced in 1935 for the same period. It must also be borne in mind that the 1939 revert record is particularly good in view of recent drastic price reductions. While we are glad to see these price reductions, nevertheless, they are subjecting the five-year refrigeration paper to a very severe test, because many of our customers could relinquish the equity in their present refrigerators and repurchase at present prices, almost identical 1940 models at a substantial saving.

Incidentally, this answers one of the questions which bothered us when we engaged in five-year installment financing. We were afraid that a drastic price reduction would cause heavy reverts. So far this has not occurred.

Although it is too early to arrive at definite conclusions regarding the economics of five-year refrigeration financing, the results to-date are encouraging. It is our intention to continue this study until we have a complete factual analysis covering this type of business.

Thus far, we have only discussed sales to new users. The replacement market has problems of a different character and presents a dilemma to the average utility company. When an old electric refrigerator is replaced by one of modern design, the utility suffers a substantial loss of revenue due to the improved efficiencies of modern refrigerators. If the old electric refrigerator is replaced by competition, then, of course, all of the revenue is lost. Thus a most important consideration in any study of the replacement market is to determine the strength of competition. How vulnerable is this load to competition? A national survey by a gas refrigerator company claims that 65 per cent of the old electric refrigerators are ripe for replacement, because,

25.5% are worn out
24.7% have motor trouble, or are expensive to operate
15.5% are not satisfactory

If we think back a few years and recall some of our refrigeration service troubles, the strategic position of the gas refrigerator in the replacement market becomes clear.

An analysis of more than 2000 gas replacement sales in our territory shows that 75.1 per cent of the electric refrigerators replaced were 6 years old or less:

Years	*No.*	*Per Cent*
0 (Under 1 Yr.)	330	16.1
1	68	3.3
2	112	5.5
3	164	8.0
4	222	10.8
5	348	16.9
6	297	14.5
7	184	8.9
8	171	8.3
Over 8 yrs.	158	7.7
	2,054	100.0

At the present time but 9 per cent of mechanical refrigerator ownership are gas refrigerators. The objective of the competition is to increase this to 20 per cent but this goal will not be reached if the Electrical Industry, both manufacturers and utilities, attack this problem in their usual vigorous manner.

Another consideration in a discussion of replacement sales is the trade-in problem. An impression has been created nationally that Philadelphia has found the solution to the trade-in problem. We only wish that this were true. We have had so many letters and visits from people from all over the country asking for details of our plan, that perhaps it would be well to take a few minutes to state the facts.

About October 1, 1938, The Associated Refrigerator Plant, Inc., working through the Electrical Association of Philadelphia, put into effect a trade-in plan for the Philadelphia area. This plan had two essential features. The first of these was the so-called blue book containing pictures of all the various makes and models of old refrigerators and a recommended trade-in value. Associated Refrigerator Plant, Inc., originally agreed to buy these traded-in refrigerators from dealers at one-half the blue book value.

Practically every refrigerator dealer put the plan in effect, but the blue book part of it was discontinued after a short time for two reasons. It was difficult to apply in actual practice because even with pictures, it was not always possible for the salesmen to identify the old refrigerator. In addition, it was found that the blue book allowances less the amount recovered from the sale of the trade-in refrigerator, exceeded the usual 10 per cent trade-in allowance which had been in effect prior to the introduction of this plan.

The second feature of the plan was to recondition the trade-in refrigerators and guarantee them for 90 days at a flat price of $20.00. Associated Refrigerator Plant, Inc., have continued this part of their plan, that is, the purchasing of traded-in refrigerators or the reconditioning for dealers, even though the blue book, customer allowances, is no longer being used. With the advent of the low prices for new refrigerators, we do not know what will happen to this reconditioning plan.

We have been informed by the Associated Refrigerator Plant, Inc., that between October 1, 1938, and July 21, 1939, 2910 boxes passed through their plant. 836 or 28 per cent of these boxes were junked. 590 were reconditioned for dealers and 1309 were sold to dealers and department stores for resale.

Philadelphia Electric Company has participated in the plan from its inception on the same basis as any dealer.

For the past 16 months we have been fighting very severe competitive conditions. In addition to a five-year payment plan, the gas refrigerator offers very favorable inducements to dealers, consisting of advantageous discounts, a partial recourse plan on installment paper whereby the dealer is relieved from the responsibility of reverts when the customer has paid 15 per cent; an unusual floor plan amounting to a virtual consignment; and generous trade-in allowance; the dealer being refunded $17.50 toward a $25.00 trade-in allowance.

We wish to point out that what is happening in Philadelphia should have more than a passing interest for you, because if competition is successful with us, you may be sure that the same competitive conditions will have to be met nationally.

We are taking vigorous steps to protect the electric industry in 1940. It is hoped that a five-year plan will be announced shortly. A substantial advertising fund has been set up and an agency of national reputation has prepared a powerful campaign which is designed specifically to meet our needs. The un-

(*Continued on page* 144)

Advertising to Sell Use

By R. G. Kenyon

Advertising Manager, Southern California Edison Company, Ltd.

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

NO OTHER business institution has as many different ways of serving up its commodity to its buying public as has the electric industry.

The multiplicity of applications of electricity provides an almost endless number of approaches which we in the advertising end of the business may use in order to accomplish our objective. Each of these applications represents a compound problem for the advertising department.

When we talk about advertising selling "use," it seems to me that we are just saying that if we are going to do a good selling job in the utility business, we are going to have to *sell* the utility business. I personally do not see any possible way in which an advertising job for a utility could be done that didn't sell *"use."* You cannot sell any product without selling the use of that product, the two are so closely interrelated. Of course, I have seen utilities try to use advertising for the exclusive purpose of selling use. I can even remember a slogan which we on the West Coast used, "Electricity is Cheap—Use More of It." Now, that anyone in the advertising and selling business would think that this constitutes a sales urge or that this constitutes a reason why Mr. and Mrs. Consumer should use more electricity, is difficult for me to believe.

We in the utility business are not the only ones who take this form of approach. I saw a truck the other day on the street in Los Angeles, a truck belonging to a local distributor of magazines, and across the back of the truck it said, "Read More Magazines."

Now, you can think up for yourself my reaction to that kind of a sales talk. Why should *I* read more magazines? It is obvious that they reasoned that I should read more magazines because it would make the magazine distributing company happier. Now, whatever my personal feelings with reference to the magazine distributing company might be, I have no intention of spending my money in building up their ego. That particular kind of a message is a direct command to do something which the seller wants the buyer to do just because it will please the seller. Psychologically, of course, it is definitely unsound. I can think of a number of ways in which these people could get me to read more magazines, but that just does not happen to be one of them.

MR. KENYON

The gasoline companies do not attempt to tell me what a lot of fun I would have in burning gasoline. What they do try to do is to build up in my mind the fun I would have in taking some kind of an automobile trip. They know that in the process of taking this trip, some gasoline is going to be consumed. We are in the same situation in the electrical utility business. We might decorate the rotating disks in our electrical meters in such an attractive fashion that people would actually like to see them go around, in which case we would make a direct appeal, like, "Go in and turn on your lights and watch your disks revolve." Of course, that is absurd. At least, we have not been able to get over that idea yet.

Now, let us check over just what it is that we do have to sell. We can't inventory the complete schedule this morning, but at least we can take up a few of the more obvious, such as lighting, cooking, water heating, refrigeration and one or two others.

Let's talk for just a moment on the subject of light. It should be relatively simple for anyone to tell a story on the value of light. But is it simple? Let's take a look. To begin with, you have a number of different kinds of lighting consumers, the first, of course, being the domestic lighting customer. We don't sell the domestic customer light as such. We sell little Johnny's eyesight, and this I contend is a sale of *"use"* rather than a sale of product.

On the commercial side of the lighting story, we sell to the merchant, not brighter light, but increased sales and this, too, is a sale of *"use."* We should remember that we do not need to promote night lighting for baseball. We just need to promote night baseball and the lighting job will promote itself.

When we attempt to increase the lighting in an industrial plant, the appeal there must be measured to meet the demand and the demand for consuming light in any industry is motivated by the urge to create a better product, safer working conditions and more efficient workmen—again a direct appeal, based on more profit.

We haven't exhausted by any means the opportunities for the sale of light to our consumer public; we are just beginning to scratch the surface. Sometime ago I had an idea, and I still think it is good, and if I were a little better salesman myself with reference to my own management, I believe that I could put this one over. I am firmly convinced that it is a profitable piece of business which is not now in existence. This is the idea: We have in Southern California on the Edison Company's system approximately half a million homes. In Southern California there probably are in operation in any one night *not* more than 10 or 15 first-class burglars. In the

minds of the 500,000 domestic consumers there is always a latent fear that their home might be selected by some of these marauders as his place of operation for that particular night. Trading on the idea that light increases safety and has a tendency to drive off such intruders, it would be my idea to sell these 500,000 domestic consumers the idea of having a light—a small light perhaps—burning in their homes every hour throughout the night every night in the year. Mathematically I could show you that this is a terrific thing. Let us just assume for a moment that we are able to sell 10 per cent of the people, or 50,000 of them, into this idea that light means safety in their homes. Let us assume for a minute that these people put into their hall a 10-watt bulb to burn all night—say eight hours. That is 80 watts per night for 30 nights per month, a total of 2,400 watts. On our system this would amount to about 12½ cents a month. Now, you multiply this by 50,000 and you get between $6,000 and $7,000 a month, about $75,000 to $100,000 per year, and don't forget that I started off with a very small group and a very small lamp size. Of course, in attempting to put over such a program as this, it would be necessary to go out to the small towns, enlist the aid of police departments, the women's clubs and other civic-minded groups. You would have to organize safety-first committees, etc., but it would be a natural. Once you get endorsements of this kind of a drive, you set a terrific force into action. This I contend would be a sale of *"use"*—and it could be done.

One of the things which an advertising man is supposed to do is to make surveys. At least, that is what the agency boys do and apparently they are doing right well by themselves in the process. So we thought we ought to make a survey, but being a utility survey, we thought we ought to make the survey pay for itself, and here is how we worked it out. The average lamp size in the American home today is slightly under 60 watts, so any way in which a larger lamp could be placed in use in the home is plus business. Working on this premise, we concocted the following plan: With our bills we sent out to our consumers in one division a form labeled "Home Survey." On the face of it we ask the consumer to help us in making this survey. For this service we offer her a 100-watt lamp bulb free. We ask her to fill out the slip, giving in detail the names and ages of all the major appliances in her home and then we say, "Take this into any of the electrical dealers listed on the back of this slip and they will give you free this 100-watt lamp." The dealers entered into this with enthusiasm and in most cases were quite conscientious in seeing to it that the slips were properly filled out. We sent out just a few over 10,000 in this one division and had 1,103 turned in to the various dealers. The dealers then brought the slips to our office and we paid them the *full retail price* of the lamp. Incidentally, we permitted the dealer to take any information off the survey slips that he wanted before he turned them in to us. The survey worked. We have valuable information on better than 10 per cent of that particular customer group. This information we think is going to be of real help to us in guiding us in making our future plans for domestic sales. In addition to that, the consumer has in her home a 100-watt lamp which she did not have before. We paid 15 cents for each survey slip returned and a very small sum for printing. The 100-watt lamp is worth all of that to us in revenue plus, so we are even. The dealers liked it, we liked it and the consumer liked it, and everyone is happy.

When we consider the sale of the small appliance, we probably are talking about one of the most neglected fields in the electrical industry. We on the Coast have had a number of appliances which have served as campaign items. Now I doubt whether it is possible for me to do anything in an advertising way to induce my wife or your wife to take her electric iron off the shelf and use it if she doesn't have anything to iron. We have about 100 per cent saturation on electric irons in the homes of our consumers. So I don't see that there is much which we can do to increase the load factor of the electric iron. The manufacturers, on the other hand, have done us a real service by increasing wattage and lowering weights, making it a more attractive and a better piece of equipment for the housewife and at the same time a more profitable piece of equipment for the utility.

But on some of the other small appliances I believe that there is a good and untilled field for promotion. I can conceive of an attractive presentation on electrically baked waffles being made, which would induce some housewives to take the waffle iron down off the top shelf, dust it off and put it to work. I can visualize a deal which might be worked up between some waffle flour manufacturer and a utility whereby it would be possible to offer a sample box of prepared waffle flour to the housewife. A certain percentage of the homes in which this is tried will become "waffle conscious" and behold there is more electricity registered on the meter. Now, that is not a gigantic item, but I say it is a sale of *"use"* again.

One of the finest small appliances that we have promoted in our territory has been the roaster. This appliance has an almost unlimited variety of uses and lends itself to a variety of sales and advertising approaches. As I said, the appliance business has been almost a casual business with the electrical industry and it is now reaching the stage where many appliances going into the consumers' homes are coming from drug and non-electrical stores.

I have not included in this discussion the question of commercial applications of the electrical appliances. In this field there is an almost unlimited opportunity to do a constructive job of selling *"use."* Here again we appeal to the profit motive and we are in a position to show the merchant that he can by the use of the electric deep fat fryer, or the electric waffle iron, or the electric coffee urn, or some one of the many commercial units, bring a greater amount of business into his store and make a bigger and better profit for himself. Incidentally, this is a very nice load from the utility point of view. This I say is a further sale of *"use."*

Now, let's talk about refrigeration. This activity has enjoyed a phenomenal growth in the past ten years on the utility systems of the country. This spring the price cut which all manufacturers have made has proved effective in moving merchandise. Our own reports indicate that to date sales in our territory are slightly in excess of 1000 more than for the same period last year. I think that the refrigerator sales programs as carried on throughout our nation have been almost entirely dominated by gadget selling, such as hinges, hardware, trick shelves, and so on. Possibly because of the terrifically keen competition between such a large number of manufacturers or possibly because of the revivified competition from the ice industries, the sale of *"use"* has been somewhat overlooked.

Now, let us consider for a moment, ranges. Here is a field which has lent itself very largely to the *"use"* angle so

far as advertising and selling is concerned. In our own territory we discovered that we had a large number of homes, 5,000 to 10,000, that had already been wired for an electric range in the kitchen and that the original owners had moved away, taking their electric ranges with them and the succeeding owners were using another form of fuel. Now, here was an opportunity for a direct mail approach and we used it. Just after the first of the year, we opened fire with a direct mail campaign, carrying with it a return post card. The response on this has been highly gratifying. We have salvaged a great many of these homes. This in my way of thinking is a sale of *"use."* Before any advertising could be built to do this job, of course, it was necessary to work out an attractive deal for these particular customers.

And that brings me to another question. It is absurd to spend advertising money unless an attractive deal can be presented to the customer. Sales executives who are otherwise very sound in their judgments, are prone to believe that advertising is capable of performing miracles—that advertising can sell anything to anybody. Well, maybe they don't *believe* this, but they *hope* anyway. Advertising does not sell. Advertising brings the product to the attention of the prospect. If the "deal" is attractive, then advertise it. If it is not attractive to the consumer viewpoint, then start over again.

A good advertising program for a utility should do two things—first, it should tend to soften-up the buying resistance of the prospect, that is, it should condition his mind. Second, it should build up a friendly reception for the utility, for its selling organization and for its product. Of course, there are a number of other things which a good utility advertising program should do, but these two are the essential functions of a utility advertising program. Both of these objectives—the selling of the product and the building up of friendship should of course be carried on simultaneously.

Advertising, to my mind, represents the fingers of a sales organization, reaching out beyond the normal possible contacts of the selling organization.

Advertising is a *"readier"*—not a *"seller."* We will get out and attempt to plow up the ground. We will even go so far as to try a little harrowing and planting, but the business of harvesting the crop must be done by the salesman making personal contacts right out there on the firing line.

But to get back to the subject of ranges. Of course, we maintain a continuous barrage against the mental equipment of our consumers in the form of newspaper advertising, magazine advertising, outdoor advertising, car card advertising and other standard forms of approach. We believe that the electric range is the first step in really selling the all-electric home.

We have in our territory five hundred dealers, some good, some not so good, some just dealers, but all of them representative of the electrical industry and all of them useful, if given proper encouragement and help. We try to *sell* our dealers on the value of the sales promotion which we are doing. We find that they don't believe it unless they see it and they don't seem to see it unless we show it to them. The *Dealer News* is used on every major campaign. It produces sales results and it helps make friends. The dealer is in our electrical industry family.

Water heaters represent another use-type of equipment that can be sold and is being sold with the help of direct mail. Under our rate structure the use of the water heater is practical only in a home using an electric range. We had a campaign just prior to the first of the year in which we sent out 12,000 pieces of direct mail in which we offered the customer, free, a small coffee percolator—two bits worth of aluminum. We had a response of better than 12 per cent on this and sold better than 26 per cent of those who responded. We hit upon a crop that was ripe and ready for picking.

In my mind, one of the largest fields which has been most sorely neglected has been the radio field. So far as can be discovered, very little has been done by the utilities to push the sale of radios and, with one or two exceptions, practically nothing has been done to encourage the longer hour use of radio itself. When you can get a family to sit up 20 or 30 minutes, or an hour, longer than their usual time, listening to the radio, with the lights on, you have made a real *"use"* sale. That this is possible is demonstrable. I believe that proper programs at proper times can be offered which will tend to lengthen out the normal listening period of the average family. This I say is a field which we have not yet begun to cover adequately.

The use of electricity on the farm is another field that opens up unlimited possibilities for the further sale of *"use."* Portable equipment of all kinds, chicken raising equipment, and that sort of thing, are just beginning to roll and will undoubtedly bulk large in the future as a very welcome source of additional load to the power companies and an additional source of revenue to the manufacturer. The farmer is another fellow who is more apt to be motivated by a logical sales talk than by one based upon some emotional appeal. In order to help build prestige for our agricultural sales people in their contact with the farmer, we have begun the creation of a series of booklets which we call the *Edison Farm Library*. Thus far we have two of this series of booklets completed and the third one is well under way. The first one dealt with the problems of irrigation and is entitled, "Water on the Farm"; the second deals with the modern methods of raising chickens and is entitled, "Modern Poultry Farming." The third, which as I say is under way, covers the complete story of the dairy. All of these books are as authoritative and authentic as it is possible to make them. These books are not for heterogeneous general distribution, but are furnished the salesmen so that they have have something which they may leave with the really interested farm customer.

We have recently completed a motion picture showing in full color the electrical method of brooding chickens. The picture starts with the chick one day old and goes through to the end of the sixth week.

Selling electricity to industrial plants is a little more involved and a slower process, but very, very worth while, and a field in which I do not feel that anything like an adequate job has yet been done. This field does not permit of the emotional approach which we may use in the domestic field. We must get down to bedrock and talk real dollars and cents before industry will listen. They are not going to put in a 20 horsepower motor unless they have a reason for putting it in, regardless of how beautiful it may be. The approach to their buying side must, therefore, be made logical and sound. Industrial users are anxious to find out what the other fellow is doing and we are using some magazine material along this line to help keep our industrial consumers informed about the latest developments in applications of

electricity to their particular type of operation.

One of the problems which we on the Coast find ourselves up against is the slowness of industrial growth and we find it necessary to run some national magazine copy urging industry to establish branch plants on the Pacific Coast. This, as I said before, is a long pull business and is impossible to measure on a day to day or week to week basis.

I neglected to mention highway and safety lighting among other forms of lighting we have, but here is a field in which we are certain there is a great possible development. It has a peculiar type of approach which must be made on it. The field, of course, is not vast, but we feel certain it is coming our way. Here is an example of another possibility for *"use"* revenue which exists everywhere. One vehicle which we have been using rather successfully for the promotion of the use of sodium vapor street and highway lighting, is a magazine called *Western City*, published by the League of Municipalities, covering about twelve of the western states. This magazine goes to the desk of every mayor and councilman in every city in our territory and to all of the other prominent municipal and other political subdivision officials. We use full page ads in this magazine, featuring some highway or safety lighting installations on our system. In the advertisement we run a picture of the man or men who are the officials for this installation. If, for instance, we give the City of Long Beach a play in this particular month's issue, we prepare a news story for the Long Beach papers, telling that *Western City*, a magazine going out to so and so, is carrying this month a featured ad on the City of Long Beach lighting installation, and so on. This has been extremely well received and we find that we are making friends and actually making sales.

Now, none of these things which I have told you are in themselves the without-which-not of an advertising program, but they are all part of such a program and they all enter into and contribute to the success or failure of such a program.

I have not said anything to you about how much these individual advertising helps should cost, because it is a rather difficult thing to determine that, but I recognize that cost is a definite limiting factor and must be considered before the merit or demerit of a given plan can be intelligently considered. I just know that out in the field there are countless thousands of people who are sitting there, able to buy, who would be willing to buy if they knew they needed it, or were unhappy enough with their present equipment.

Those of us who are in the selling and advertising side of the utility industry have no choice in the matter. We must tell our story and sell our product. We must make our customers conscious of our product—conscious of how easy it is to buy it and how easy it is to use it. We owe this to ourselves, we owe it to our respective companies and most important of all, we owe it to our customers.

To Sell or Not to Sell

(*Continued from page* 126)

plants is to force rates down, and second, that with this pressure from above and the rising costs of labor and material from below, our only hope to be able to reduce rates (which we must do) without seriously hurting the net (which would ruin the business) is through selling more of the product. We certainly know that each successive rate reduction and each successive improvement in the efficiency or price level of apparatus opens up new avenues for selling that did not exist before. In a word, aggressive and eternal and thoughtful sales effort is really the only thing that can bring us successfully through the troubles that now beset us.

We must not let down our public. Electricity is still a wonder to the people, just as even to us it is a mysterious something we can't see or touch or store. The public expects constant new miracles, new applications and new efficiencies; and our sales forces are the ones who tell them about them. If soap and soup and other old reliables, that have been doing the same thing for generations, can afford to advertise and enthuse about their products, how much more can we who have something really novel, useful and exciting to talk about? I can think of nothing that would tend more to getting people to thinking about municipal ownership and operation than the impression of lethargy and indifference that any general slackening in sales effort by the private utilities would be bound to indicate in the minds of our customers.

One of our strongest arguments for private initiative versus government operation is epitomized in our sales efforts. We justly criticise in government operation the lack of initiative which would retard or prevent all progress. We know that as a class the municipal plants are not so active as we are in sales effort. We cannot afford, for our own self-respect or for the continuation of the benefit to the public of private operation, to relax our efforts for a moment in the sales department.

What we want above all else is to get and keep, by deserving it, the good will and respect of the people we serve. There are ways and means to accomplish this and which are outside the scope of this short paper, but sales activity greatly helps the process, by constantly keeping to the fore the idea of helping the customer to get more benefits from using our service. Intelligent salesmindedness is always working for the best interests of the customer and this attitude makes for greater friendliness in return. The greatest users of our service are the ones who appreciate it and us the most. Our number one problem in the present political and economic condition of the country is to keep our properties against the forces that would try to take them from us. Nothing will help more effectively to solve that problem than the greatest energy, the most skillful ingenuity, the most endless persistence in sales effort.

I am sure you all realized when I set up the questions I did in my opening that I was but setting up a straw man to shoot at. From the fact that you are here in such large numbers, I feel confident that you agree with me that the straw man hasn't a leg to stand on, but it has been a pleasure for me to meet you all and give you the assurance of my complete approval of the wisdom and necessity of the continued sales effort to which you are all dedicated.

Meeting Obstacles

(*Continued from page* 140)

derlying theme of this advertising is based on three points:

Electric refrigeration costs less to buy for cash
Electric refrigeration costs less to buy on time
Electric refrigeration costs less to operate

In conclusion, I hope that this brief discussion has convinced you that the development of the electric refrigeration load is not going to be plain sailing from now on. I have tried to point out the strategic position occupied by competion, both from the standpoint of sales to new users and from the standpoint of replacement sales. It would seem that the whole subject calls for review and careful study by all who have a vital interest in the electric refrigeration industry.

Building Management's Interest in Modern Wiring Developments

By P. C. Hodill

President, National Association of Building Owners and Managers

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

WHEN I received the invitation to address members of the Edison Electric Institute, my first reaction was to duck and run. This was not prompted by a lack of desire on my part to meet with you and be a part of your Sales Conference. On the contrary, it was an impelling force which stopped that first impulse and said, "Go ahead!" From that point on, the big question arose: "What can I as president of the National Association of Building Owners and Managers present to the members assembled? What is there of mutual interest to us, past, present and future, which I can offer to utility executives and representatives which will contribute in a small way to a better understanding of what is needed for advancement of business, betterment of conditions and possibly a greater return for efforts expended?"

It was not long before I realized that I had a problem on my hands. By the usual method of deductive reasoning, I eliminated numerous apparently insignificant facts and decided that after all you as members of utility staffs and we as managers of buildings have possibly the greatest objective possible in common; namely, SERVICE TO THE PUBLIC. A brief consideration of this statement cannot help but prove this to anyone's satisfaction. No utility can be successful and continue to expand unless SERVICE is the cornerstone of its structure. And by the same token, no building can rightfully expect to yield a return on its investment unless the convenience and comfort or SERVICE to its occupants is properly provided for. Basically speaking, it is the masses on the outside looking in whom we want to bring to the inside and have them looking out.

I think we can agree that we have a common problem. That problem is to give our customers, present and prospective, what they want, when they want it, at a reasonable cost. You deal in one primary factor—the delivery of electric service to the customer at a price which

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he is willing to pay, that is a low rate kwhr consumed. We, as building owners and managers, have a similar problem, that is, providing desirable office space with modern facilities at a reasonable rental charge. Bluntly expressed, we all have something which we want people—the public—to use and at the same time we all want to receive a fair compensation for this use. Whether it be sales of automobiles, clothes, appliances, machinery and what not, our objective is twofold: (1) Continued and increasing use of our "salable commodity" and (2) Maintaining or preferably increasing our net return.

I pause for a moment to draw this analogy: "What makes a clock tick?" You all know the answer: "The works." If I were conducting the Lucky Strike Hour, I would say, "That's right, you're right!" But, "What makes a building click?" Your answer and mine could well be the same: "Electricity." It requires no great stretch of anyone's imagination to see the correctness of this statement.

I could go even further and say that the modern office building could not exist without the product you have to sell. Nobody invented the office building. It is the natural outgrowth of the development of American industry. With mass production in industry, there naturally came mass production of office space, but neither development could have taken place without convenient and ample power. Our problem has been and is to provide more capacity to meet constantly increasing demand for new and better facilities which electrical energy alone can supply.

The fundamental reason for the modern office building is an economic one. It has come upward from three or four stories to 50 or 100 stories, as the case may be, for just one reason. It can provide more value per square foot of rentable area than can be had for a similar purpose in any other way. That means adopting every new and worthwhile improvement. It also means keeping down cost.

An office building seems to be a very permanent institution. It is built to last, but I can't think of anything more subject to change than the modern office building. The reason for this change is the new facilities that come along and the new demands that they in turn create.

Air-conditioning is one of these new developments. Fluorescent lighting is another. Progress of vertical transportation has brought radical changes. The demand for higher light intensities—which has been helped along by some constructive propaganda which I suspect some of you have had a hand in—has had a very pronounced effect upon our ideas of minimum requirements, just as it has had a similar effect upon the ideas of our tenants, who used to be quite happy with 6 ft candles of illumination and now are dissatisfied with three or four times that amount.

More than one fine new office building has been obsolete before the first tenants moved in—or pretty nearly that fast—not so much as a fault of the de-

signers, as because some inventor with a fertile imagination came along with a new and a good idea which, for this particular building, was inopportunely timed. These factors of obsolescence are not always visible to the naked eye. A very common example is the electrical conduit that the tenant seldom sees, but which has provided a very definite limitation on the amount of current we can take into our buildings to meet these new and increasing demands.

The statement has been made—and our inquiry confirms it—that no less than 75 per cent of the office buildings erected before 1930 (and most of them *were* built before 1930) have inadequate wiring capacity. That is because we just didn't know when we built them what the demand was going to be. Most of our people drew upon all of the experience that was then available, and then doubled their estimate of future requirements, just to be safe; and still they find that they are not equipped to meet the demands that are here today, to say nothing of those we may have tomorrow.

When we first learned of thinwall conductors, our interest was instantaneous because a conduit is a costly thing to tear out and replace. An office building, as I said, is built to last, and a lot of these conduits are buried in concrete. You almost have to wreck the building to get them out! So when someone came along with a new method of wiring that will double or triple or quadruple the capacity of these highly important conduits, he had just what we were looking for, and since your main purpose in life is to sell more electricity, and since the office buildings of the country are an important customer of the companies you represent, and since our capacity to purchase and use more of the product which your companies put out is dependent on this, I would say that this new development is just what *you* have been looking for, too.

I don't know just when the information about thinwall wiring first became current, but our acquaintance with it is less than a year old.

It came to our attention in April or May of last year and it was the subject of an important presentation on our Convention program in June. You see we didn't let much grass grow under our feet.

At this same Convention, thanks to the cooperation of the Edison Electric Institute, we had a demonstration in exhibit form, and the expressions of interest, of which your people made a record, gave immediate and concrete testimony to the fact that our members were alive to rewiring needs and alert to the opportunity of finding a solution.

We found there were two angles involved. One was the availability of physical equipment; and progressive manufacturers were prepared to supply the answer to that.

The other was an intangible but very definite hurdle; the electrical codes of our various cities did not permit the use of this new equipment.

Between June and December of last year, we devoted an important part of our endeavors to this problem. We made extensive investigations which confirmed what we had previously believed—namely, that there was a large amount of much needed rehabilitation work to be done in modernizing our wiring systems, and that it was being held back by the excessive or prohibitive cost of providing greater feeders and branch circuit capacity.

We interested ourselves in the movement to liberalize the National Electrical Code, submitting the facts thus ascertained to some of the groups—specifically, the various branches of the Association of Electrical Inspectors—whose support would be needed to effect the necessary modifications in code requirements.

When the Electrical Committee of the National Fire Protection Association met in Atlantic City in December, we had a member of our National Association present and on the job. We have since appointed a permanent representative and an alternate representative upon the Electrical Committee. I mention these facts to show our active interest in what appears to us as a very essential development—one that will enable us to buy more current from you—one that will enable you to sell more current to us.

There is a definite bond between utility and building management. Your product is indispensable to the operation of our business. And, if I may be permitted to mention in passing, we as customers pay a neat sum to your companies in return. Therefore, I can see but one general fact—we are hand in hand in a business world made up of innumerable individuals who are dependent upon the economic aspects of our business for an existence. When I say economic aspects, I mean the provision of conditions which enable others to perform whatever duties they are assigned in a most efficient and profitable manner.

In the final analysis, is not the business circle a never-ending chain of exchange between individuals, the continuity of which depends upon the proper functioning of each unit? After all, you sell us current, we distribute it to our tenants, our tenants supply the markets with merchandise, merchandise is bought by you and me, we pay the merchant, the merchants pay the manufacturer, the manufacturer pays the office force occupying our buildings, they pay us rent, and we pay our bills to the utility. Thus the cycle of business goes 'round and 'round and as long as conditions are such that every unit is able to pay we all prosper. Again we have our problem of "keeping the ball rolling." We are certainly vitally interested in it.

Only when obstacles appear to stifle this progress do we as a whole feel the effect. The ever-increasing progress made in conveniences so necessary to the performance of daily tasks has forced changes in affiliated phases of industry. Let us pause to analyze a few commonplace advances which exert a profound influence upon our business. Not so many years ago, to be specific, I can say 10 years, levels of illumination in the order of 25 foot candles for general office work were merely an optimist's dream. At that time if an office had 6 foot candles it was considered normal and if it had 10 it was ideal. But now we find a 200 watt lamp being replaced by a 300 or 500 watt. And all this is a demand from the people!

And now we are getting into air-conditioning. The stylists and sales forces have developed mediums for uniform climatic conditions in structures and people are demanding it!

Now where are we? If I may be brazen enough to say "we," I say "we" —you and I—are in a forest without a compass. Plainly stated, we have all these available products on the market but somewhere in our line of application proper provision has not been made for the economic utilization of these commodities. The obstacle lies to a great extent in the lack of adequate wiring capacity for the installation of these improvements.

It is not my thought to blame anybody; or to criticize those responsible for regulatory measures governing the installation of electrical equipment. Regulations are all right in their place. Who could have predicted, ten years ago, that the use of electrical equipment would advance to such a stage that it would, in accordance with present standards, render facilities, then regarded as the last

word, practically obsolete today. Yet we have just such a situation to deal with and must find a solution.

Unfortunately, it is not easy or economical for us to change the interior structure of a building. Understand, I mean from a standpoint of pure and simple business economics. The natural features are often such that it is not possible to "carve out" the interior and still support an exterior. Then with this condition, we must resort to some other means of solution.

For example, in one of our largest cities a manager was faced with a lighting problem. Due to the construction of the building, it was impossible to replace the existing conduits in order to supply capacity in wiring needed to provide lighting demanded by the tenant. At the same time, the tenant would not approve the area for rental if conduit were run on the walls and ceilings. It was therefore mandatory that some means other than the commonly accepted method be employed. By taking advantage of the approval of a three-wire instead of a two-wire branch circuit, needed capacity was created.

I quote this example to show the need for a liberalization of regulatory measures. In the past, there has been a tendency, under the cloak of safety, to restrict installation methods to such an extent economically unsound.

In our office buildings the wiring standards of 1930 limit the consumption of current by our tenants. At the same time—or rather since 1926—the average annual use of electricity by the domestic consumer has nearly doubled.

There is work to be done. The public has been educated to the use of electricity at home. The same people are going to and have been demanding that we provide them with "all the comforts of home" in their places of business. Can we do it? If not, why not? We already have electrically cooled water, higher intensity lighting, electrically operated devices and other necessities. Is it not reasonable to assume that more will follow? I believe it is.

What is our position in the matter? Yours and mine? Just this: We have the buildings, you have the electricity, and the people supporting us want both. We cannot cast our buildings into discard, but we can under favorable conditions, renovate them to such an extent that they will provide all the comforts and conveniences offered by a new structure. This is, of course, dependent upon one major factor and that is the withdrawal of restrictive regulation when such restrictions prevent progress.

You probably immediately fortify yourselves with a statement that great progress has been made as will be evidenced by the next edition of the National Electrical Code. This is a real contribution. The use of so-called thinwall insulated conductors is permitting our industry to do things which would have been impossible under previous conditions. This is the beginning of a release of old buildings from bondage. If through a continuation of such a progressive program we can reach from our branch circuit distribution back through our feeder to our service connection, we are assured of a complete job. All we will have to do is "wash the outside and it will be like new." Again, I express our gratitude for this constructive program.

Now let me talk *your* business for a minute or two.

You are a salesman—and for the purpose of this discussion, I am your customer. The office building is a good customer; and the customer, I remind you, is always right.

You want to sell more current and your most profitable field is in the more populous centers where office buildings abound. Your concentrated load is your most profitable business, and a pretty good way to get more business is to sell more current to your present customers.

The way to do a larger volume of business is to make it possible for your customer to save money by spending more!

That is why we are interested in thinwall wiring. It makes it possible for us to develop more adequate facilities for our own customers—our tenants—at increased profit to you and increased profit to us, without saddling anybody with an over-all construction cost that takes all the fun and profit out of it.

Thinwall wiring is a good example of the point I have in mind because if it had not been for some of your fellows, we might not have known anything about it. We are grateful to you for developing new ways of creating business through the incentive of lower wiring cost. It is a part of your job as salesmen to look out for the interests of your customers. There are plenty of people who lie awake nights devising new ideas that are going to cost us money. The office building is a convenient target. It is reassuring to have a group like yourselves, who are trying to save us money—not because you are philanthropists, but because you are good businessmen, and as good businessmen you have a stake in the welfare of a good customer.

There will be other improvements, like thinwall conductors, coming along. There may be other opportunities to oppose regulations that are unduly restrictive. You get around where you can see these things more quickly, perhaps, than we will, and just as I find satisfaction in the fact that we have in this instance a situation where your initiative and cooperation is helping to bring about improvements—so I am hoping that you will continue to be watchful for opportunities to serve a good client and thereby serve yourselves.

In conclusion I should say perhaps that we are not unmindful of the factor of safety or unappreciative of the efforts of those who would preserve it.

In behalf of our Association, I want to be clearly understood on the following points:

(1) We do not intend to support any activity which will produce hazardous conditions in our buildings. We cannot afford to.

(2) We do not intend to influence legislative bodies to adopt discriminating measures harmful in any manner to any branch of any industry.

(3) We do wish to seek cooperation from all interested bodies in providing for the needs of the public at a reasonable cost.

(4) We do wish to sponsor progressive activities which will give everyone concerned an opportunity to secure a fair return on his investment.

(5) We do wish to be recognized as an Association willing to abide by any reasonable regulations.

I have already said that the modern office building could not exist without the product of a million uses which it is your job to merchandise. There can be little question that we are going to rely more and more upon electrically operated devices of every imaginable sort. I hope that the formalities now in progress will result in the early adoption by the National Fire Protection Association and by the American Standards Association of the new code provisions, as adopted in December. I hope that around the country there will be a prompt liberalization of local codes to conform with the new National code. I hope and believe that with the removal of artificial barriers, our industry will be quick to use the improved facilities available to it.

And I hope that the principle thus exemplified will go on and that we will find more and better ways of increasing the value per square foot of our office building rentable area. If that results in more business for you, as it undoubtedly will, I can only say—"More power to you!"

Effective Co-ordination of Utility-Manufacturers Selling

By C. E. Swartzbaugh

President, National Electrical Manufacturers Association

An address before the Sixth Annual Sales Conference, Edison Electric Institute, Chicago, March 21-24

IT is my privilege, as its President, to bring to you the official greetings of the National Electrical Manufacturers Association and to extend their best wishes for a successful and profitable sales conference.

And from now on, *nothing* that I say should be considered official, for I will be expressing purely personal views.

"Effective Co-ordination of Utility-Manufacturer Selling"—there's a subject to delight the imagination of any speaker—and especially one who relishes a range of possibilities, and who feels the urge somewhere along the line to say something he *thinks* should be said despite its probable unpopularity.

In considering the subject, one almost instinctively turns to our several Industry Promotional Programs as presenting the best evidence of Effective Co-ordination of Utility-Manufacturer Selling in recent years—and to that I would also add, Wholesaler and Dealer Selling.

Now, much has been said—much written about these Programs—no little of it by me—too much by me perhaps, for as I was leaving this hall two years ago, after unburdening myself to you on the subject of the Modern Kitchen Bureau, I overheard one utility man say—"That guy is certainly outspoken" to which—quite unnecessarily, *I* thought—the other asked, "By whom?"

But, it is my belief that there are phases of these programs which have not been discussed extensively and which, except by a very few people who have worked closely with them, are largely unappreciated.

You are already familiar with the statistics showing the markets which can be tapped by, and the national sales increases which can result from, successful joint co-operative promotional programs. So I won't repeat them here.

You've also been told time and again of their local possibilities. You know of, or have experienced, many of their benefits—the National Publicity—the activities of field men—the pooling of the Industry's resources of men, money and ability to develop a program to which all can subscribe—the success of the various bureaus in preparing supporting advertising materials, at low cost, of a kind and quality neither the small manufacturer or small utility could otherwise afford—their ability to tap trade paper and governmental sources of statistics and information not ordinarily available—the use of the Bureaus as central clearing houses of information on successful sales promotion in all parts of the country. All are of inestimable value—all absolutely essential.

MR. SWARTZBAUGH

But I want to talk of none of these things today. Just three statements constitute the background of this paper and here they are.

I.—The development of the Procedure under which our present joint co-operative all Industry Programs have been integrated constitutes one of the most constructive steps the Electrical Industry has ever taken—as an industry.

II.—The continuation of these programs, and the development of similar additional programs is the best visible means of insuring future sales progress of an overall nature in the Electrical Industry.

III.—These programs are in danger of disruption.

Let's consider the first statement that, "the development of the Procedure under which our present joint co-operative all Industry Programs have been integrated constitutes one of the most constructive steps the Electrical Industry has ever taken—as an Industry."

It is my considered opinion—and one to which many Manufacturers, Utility men, Wholesalers, Contractors and Dealers will subscribe—that out of the development of the procedures under which our existing Sales Progress grew, there accrued to all of us invaluable experience in co-operation which will pay dividends to the Industry for years to come.

For, as Utility men, Manufacturers, Wholesalers and Contractors sat around a table for hours—for days—composing differing viewpoints both in and between groups, there gradually grew, first, an appreciation of the other man's sincerity—then an understanding of his viewpoint—then a feeling of respect for his fair-mindedness and vision, and finally a desire to co-operate with him.

The older I get the more convinced I become that it's no easy matter to dislike a man when you know him well—and those of us who sat in on these early meetings got to know each other pretty well.

It is my belief that the mutual feeling of confidence, respect and appreciation engendered by these constant contacts, has been an educational force in the Industry that cannot be lightly dismissed. Starting in small groups, it has spread, and in my experience at least, there has at no previous time existed so much of a feeling of confidence and co-operation between the major branches of the Industry—so much appreciation that our interests are *basically* mutual, regardless of how seemingly divergent they may occasionally be in the matters of detail.

So no selfish desire for individual or group benefits of a transitory nature

should be permitted to disrupt or delay this progress—and any benefit will surely prove to be temporary and transitory if it *does* benefit only a part of the Industry.

In such selfish individual or group thinking lies chaos—while in the direction we have been traveling lies the effective co-ordination of the selling efforts *of all factors* on which the future growth of the Industry so much depends.

And so I repeat—

"The development of the Procedure under which our present joint co-operative all Industry Programs have been integrated, constitutes one of the most constructive steps the Electrical Industry has ever taken—as an Industry."

Statement No. 2 was—

"The continuation of these programs and the development of similar additional programs are the surest visible means of insuring future sales progress of an overall nature."

I'm tired—oh, *so* tired of the old, old plaint which some small minds, over-educated beyond their ability of absorption, have recently revived. I'm tired of statements to the effect "there is no new work to be done"; "America is all built"; "there is nothing for the youth of today"; "our old Frontiers are all gone."

Of course, most of our old *Horizontal* Frontiers have disappeared. But we have unexploited *Vertical* Frontiers almost beyond comprehension. Who can doubt that the genius which built America is still inherent in us?—who can doubt we will conquer these new frontiers?

Well, I don't for one—not since my 14-year-old, built and planted that dictograph behind the bureau in *our* bedroom, which Mrs. Swartzbaugh discovered by accident when she tripped over the cord extending to the ear-phones in his.

You can laugh and be amused at that —I'm not certain I *should* be—but perhaps it was just native American curiosity.

Between the wondering and the curiosity of our Research Workers, Scientists and Engineers and that of the plain average American, some new idea—some new process—some new product, opens new Frontiers almost daily.

You see, the Scientist and Engineer is curious and wonders, both by nature and training—the average American wonders "just for the Hell of it"—and between them they prove constantly that America isn't all built—that this is still the Land of Opportunity.

New frontiers are constantly being opened by ideas and imagination.

The idea of selling the component parts of the bathroom as a *unit* opened new sales frontiers for the plumbing industry.

The idea of two cars in every garage some years ago opened new frontiers for the Automobile Industry.

Prepared, packaged breakfast foods opened new frontiers for the farmer and the cereal manufacturers.

And when some smart mouth-wash manufacturer began to wonder about Halitosis and Athlete's Foot—Boy!—those were frontiers if there ever *were* any.

And in the Electrical Industry some smart ideas have been developed that have opened new frontiers—and, better yet, a procedure of co-operative action has been formulated that effectuates comparatively rapid realization of the potential possibilities of these frontiers —from which we, as well as those who follow us, will benefit.

Who can deny that the idea of Better Light—Better Sight opened new sales frontiers whose possibilities, even after some years of effective promotion, seem to be in their infancy?

What about the Modern Kitchen Bureau? Directed toward making the most neglected room in the home one of the most complete and efficient, surely it has extended the sales opportunities for ranges, water heaters, refrigerators, and the small electrical appliances without which no home can enjoy complete electric service. Surely it has increased your personal opportunities for advancement just as it has increased that of your Company for greater sales.

And, then to top off this frontier analogy—what about Adequate Wiring? If the present almost startling results of this program continue we're liable to find our present manufacturing, distribution and installation facilities inadequate.

I warn you—don't be *too* amused at that statement till you're sure you are familiar with the progress being made, and until you look into the national potential of business it may conceivably produce. I *have*—and it's almost astronomical—nor does my multiplication table start at 17.

These programs all help to insure the future growth of this industry in competition with other industries—they help educate the consuming public to the benefits of complete electrical service—and I direct your especial attention to the fact that *other* industries are now finding it desirable and necessary to take a leaf from our book. And no one attempts to copy failures.

So, I submit to you—we should continue these programs uninterruptedly. We should refine and strengthen them—and we should now perhaps be considering additional programs, to expand our frontiers of opportunity still further.

Perhaps the name "Modern Kitchen Bureau" should eventually be changed to make it more inclusive, so that if satisfactory means could be found, it could also include Laundry appliances. Perhaps it is about time for the Promotion of the All-Electric-Home Idea which has been proposed by some far-sighted men in the Industry.

And, surely before long, the problem of Commercial and Industrial Electrical Modernization must be met. An Industry program similar to those now going on, to promote Commercial and Industrial Electrical Modernization, should probably be developed soon. Certainly the need is great—it would be in the public interest—it is an industry opportunity. It would develop new sales frontiers.

I repeat—the continuation of these Programs and the development of similar additional Programs constitute the best visible means of insuring future sales progress of an overall nature in the Electrical Industry.

And now for the third statement, the discussion of which is, in itself, at once sufficient reason for having emphasized that these views are strictly my own and are unofficial, and also for reading this paper to be certain that what I said here and how I said it cannot be misquoted.

If what I say reflects the views of any other manufacturer, it is purely co-incidental—none of my fellow manufacturers have seen this paper—no one has edited it—it reflects nobody else's ideas.

Furthermore, what I say here is addressed equally to manufacturers and utility men, for it takes both of them, willingly or unwillingly, to create the—shall I say—abuses which might conceivably lead to a disruption of these beneficial Industry programs.

My third statement was that these

National Co-operative Programs are in danger of disruption — disruption through strangulation — through the shutting off of the supply of dollars that are so necessary to conduct them.

That's a blunt statement—intentionally so—for I'd like, with your permission, to discuss this subject not in the "Harvard" manner as though I didn't realize I was being perhaps too frank and outspoken—but rather in the "Yale" manner, as though I didn't give a damn —at least, not if any good results.

Quite frankly, I just can't conceive that anyone—in any branch of the Industry, would *want* to see these programs discontinued—at least, not if he was at all familiar with their accomplishments. Nor do I think anyone would do anything to deliberately sabotage them.

Yet they can unwittingly be sabotaged by shutting off the supply of dollars needed to promote and conduct them, and it is of that angle I wish to speak. . . . Regardless of whether or not there was complete justification for your old rate structures, the method used to lower them—the speed with which the reduction came about—and the revolutionary nature of the change produced chaotic conditions. And I feel about that statement the way the Californian did who claimed the sun always shone in California. "Do you mean to tell me the sun shines 365 days out of the year in California?" asked an Eastern friend, and the Californian replied, "Yes, and that's a very conservative estimate." . . .

It's hardly surprising that some Utilities under the urgent necessity of "restoring their gross," have done a certain amount of ill-considered scrambling —they were under pressure—time was of the essence. Anyone can understand the urge to put scads of utilization devices on the lines in a hurry. . . .

Generally speaking, local "sudden volume" programs were designed to produce greatly increased consumption of kilowatt hours. They were "sold" to Manufacturers, Distributors and Dealers on the basis of the possibility of greatly increased volume of production and sales, with resulting economics. And in not a few instances, they produced the results that were hoped for in the local market—temporarily at least.

But, if these "sudden volume" programs, based as they generally were on the price appeal alone, drove the promotional dollars out of the price of the product, the overall effect is bound to be detrimental. For without these promotional dollars, there can be no Better Light, Better Sight—Modern Kitchen Bureau or Adequate Wiring Programs —they will die from strangulation—sabotaged, unwittingly perhaps, but nevertheless surely.

Earlier I said it takes both manufacturer and utility, willingly or unwillingly, to create abuses in our joint sales picture.

This is getting to be a great business —this Electrical Appliance business—talk about suits and cloaks—why I know of recent instances—but perhaps you'll get my idea better if I tell you this old "chestnut."

As a prospective buyer walked into the clothing store, the Proprietor got out his best suit. "See," said he, "nice suit, good goods—well made—fine fit—worth $100.—But I wouldn't ask you $100.—I wouldn't ask you $90.—I wouldn't even ask you $75.—but for $60. it's yours."

"It is a nice suit," said the prospect, "good goods, too—looks like a $100. suit, but I'll tell you, I wouldn't give you $60. for it—I won't even pay you $50.—but for $35.—I'll take it."

"Sold," said the Proprietor,—"That's the way I like to do business—no chiseling."

Or, as one little toe said to the other —"Don't look now but I think there's a couple of 'heels' following us."

And I am rather satisfied, on checking up, that on some occasions my Company may have been one of the "heels."

Now, I don't blame anyone for attempting to buy to the best advantage —nor for attempting to sell all the merchandise he can; provided in the first case that the buyer treats his supplier honestly and doesn't use either "shotgun" psychology or subterfuge, and in the second case, the seller quotes a price that will enable him to live.

But when a buyer goes out to deliberately break an existing price structure, not because it's unfair or unreasonable, but simply because by doing so he can accomplish some selfish end—or when a seller, in hopes of stealing a market quotes a price below that on which his manufacturing experience shows he can live, then it's a question which is the more dangerous and destructive, industry-wise.

To say the least, they destroy confidence—confidence inside the Industry itself, and any existing confidence the outside Public may have had in it.

And when that happens in our Industry, you don't have to be a prophet to know that joint co-operative programs such as we've been conducting are in danger of disruption if the practice becomes general.

For one, I deplore it, because I've spent four years at odd moments in an extra-curricular effort as Chairman of the Business Development Department of N.E.M.A. trying to help develop and promote co-operative Industry Programs which will extend our sales frontiers, and increase our collective and individual sales opportunities through the selling of ideas, at a profit—four years trying to sell N.E.M.A. members to contribute funds for these programs.

I *dislike* to see the progress we have all made in those four years undermined. I dislike to see the essential dollars that make these promotions possible eliminated.

In those four years, I've satisfied myself that these joint co-operative National Programs require money, and lots of it, to produce results. My business experience tells me that the entire income of both my company and yours results from sales based upon sound selling and permanently satisfied customers. I know further that it takes the enthusiastic and active support of Manufacturer, Utility, Wholesaler and Dealer to make a National Program really click—and I *know* too that this kind of continuous support can only be expected if all these important factors see an ultimate opportunity for *Profit,* after they have rendered a service.

Furthermore, in my humble opinion, *no* cut price, except that brought about by normal competition, ever *has* or ever *will* produce the permanent and profitable sales volume in our particular industry, that will result from consistently, regularly, continuously selling the idea of Electric Service.

Certainly it must be apparent that in order to supply the required National funds to conduct these programs, it is necessary for the Manufacturer to make a fair profit—and *just* as apparent that the Utility, Wholesaler and Dealer must also have a fair margin if they are to supply the funds for the successful local operations, without which the National Program will be a total flop.

Of course, if the public came in and bought our products, we wouldn't have to carry on this promotional work—but they don't—and we will have to keep

(*Continued on page* 158)

Load Potentialities Through Packaged Air Conditioning

By Harry Boyd Brown
National Merchandising Manager, Philco Radio & Television Corp.

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

WITH the characteristic optimism of the salesman, I may be inclined to overestimate the great future market of portable packaged Air Conditioning. I may be inclined to exaggerate its load building potentialities. And not knowing any too much about the production and distribution of electricity, I may have exaggerated notions of the immense value of portable Air Conditioning as a revenue producer to the electric light and power industry.

However, those many utilities that experience a marked summer valley in electric current consumption must be interested in the fact that the average portable Air Conditioner in a home consumes more than twice as much electric current as the average electric refrigerator. And today the 13 million refrigerators in American homes account for 20 per cent of the domestic output. It is also important to note that the Portable Air Conditioning business is growing even faster today than did domestic electric refrigeration in its early days. Even as late as the year 1922, only 12,000 electric refrigerators of all makes were sold throughout the United States. The average retail price was $525.00. The total volume of business was only 6 million dollars.

However, about 1925 the electric light and power industry placed its vast merchandising and promotional power behind the sale of domestic electric refrigeration, and the business soared by leaps and bounds. So rapid was its growth that a few years later, in 1930 to be exact, the total volume of domestic electric refrigerator business in that single year was well over 200 million dollars.

Very few people, if any, in the year of 1922 had the courage to prophecy total sales of over 13 million electric refrigerators by 1940. In those early years the electric refrigerator—just like the portable Air Conditioner today—was very much of a specialty. It certainly was not a commodity.

MR. BROWN

In those days only specialty dealers with crews of outside canvassing salesmen sold electric refrigerators. They did the pioneering and then, when the electric light and power companies entered the picture, this educational pioneering work was rapidly completed. The public became familiar with the product, its utility, its desirability, and electric refrigerators suddenly became a commodity. Furniture stores, department stores and electrical stores began selling them off the floor to store traffic which was starting to shop in volume for that particular item.

And now we have the portable Air Conditioning business growing still more rapidly because, as I said before, 4 or 5 years after their introduction, only 12,000 electric refrigerators were sold in the United States, whereas last season Philco alone sold many more than that number of portable Air Conditioning units.

There are two things that the American public buys readily—entertainment and physical comfort and no form of physical comfort is more sought after than complete relief from the sultry, stifling heat of summer days and nights.

And what a market we have for portable packaged Air Conditioning! As we all know, there are more than 28 million homes in the United States. Twenty-eight million homes that have already provided the market for the 13 million electric refrigerators that now account for 20 per cent of the domestic electric current output.

Only one electric refrigerator has gone into each of these 13 million American homes. Each house, with rare exception, needs but one electric refrigerator, but when it comes to portable Air Conditioning, these 28 million homes mean 140 million bedrooms, dining rooms, living rooms, dens, libraries that should have portable Air Conditioning, not alone for the hot days of summer, but also to provide clean, fresh, filtered air and perfectly regulated ventilation all the year round. Discount these figures all you like. I discount them myself from a purchasing power standpoint, but however much we may discount or subtract, what electrical device do you know of with a greater potential market.

And, in addition, there are over 487,000 professional people such as doctors, lawyers, dentists, osteopaths and chiropractors in this country. Professional people occupying close to a half million offices that need portable Air Conditioning . . . plus hundreds of thousands of business executive offices in the commercial, industrial and wholesale establishments of this country.

Then add to this 1,160,000 hotel bedrooms still to be Air Conditioned! Not to mention 390,000 hospital rooms. Private dining rooms, beauty parlors, photographic development rooms, innumerable places, a very large percentage of which in the years to come, in my opinion, inevitably will be Air Conditioned. A tremendous unsaturated mar-

ket that gives every evidence of fast development.

Within the next two or three years—far more quickly than in the case of electric washers and electric refrigerators—portable Air Conditioners will have become a commodity. The buying public then fully understanding the character of the product—familiar with its utility and its cost—will visit the dealer's place of business to discuss room size—to select the model—or at least to arrange for the salesman to call.

A coordinated industry drive today on portable Air Conditioners would achieve quick and big results. Thousands of electrical dealers throughout the country are beginning to realize that this is exactly the type of new electrical appliance for which they have been waiting.

A new business with no saturation problem—no trade-in problem—no rapid obsolescence and depreciation. A high unit of sale with a big dollar profit and with the greatest potential customer repeat business ever seen in the electrical appliance industry.

The portable Air Conditioner is ideal merchandise for the appliance retailer because it is *package* merchandise—easy to handle and easy to install. It is merchandise that requires no special engineering or technique to sell.

And prospects—plenty of them—are easy to get. Portable Air Conditioning stirs the public interest. It excites the public curiosity as shown by the fact that newspaper and magazine advertising, and direct mail advertising bring more store traffic, more telephone calls and more signed coupons, than any other electrical merchandise advertising that I know of with the exception of television. In short, the electrical dealer will find it pays to advertise portable Air Conditioners.

Furthermore, the portable Air Conditioner not only fits perfectly into that great market that the electrical dealer is already fully familiar with—the selling of electrical appliances to the home, but it greatly widens the scope of his business. It extends his contact to professional offices, to hotels and hospitals and to those business executive offices in mercantile and industrial establishments of all kinds.

So evidently portable Air Conditioning will not need any long, drawn out educational promotion work on the part of the manufacturer and the utilities before it gets that selling momentum—that strong public demand which generally seems necessary before the retail appliance dealers start climbing on the band wagon to ride happily into a new, big volume profitable business.

You will be interested to know that 40 per cent of the Air Conditioning units that we sold last year were to customers who had purchased portable Air Conditioners in 1938. It seems that this is the *one* electrical appliance where the keenest, most responsive market is the old customer or the present owner.

When Mr. Smith—whose place of business has a dozen offices—buys one or two Air Conditioners to find out if the cool comfort is as true as advertised—and finds that it is, then he is in the market for ten more to equip the balance of his offices. A hotel buys six or eight as an experiment. It finds those particular Air Conditioned rooms in constant demand even at higher rates. Then, naturally, the hotel is in the market for additional units.

Regarding the residence, the American home, the first sale generally is made for the master bedroom where father and mother sleep. By the end of the week, father and mother have become pretty tired of having the rest of the family hanging around their bedroom all night; so other sales are made. An Air Conditioner goes into Susie's room—another in Willie's and so on.

And incidentally, the figures of some of the largest utilities show that approximately 50 per cent of Air Conditioners in use are in homes and the other 50 per cent are in offices. This gives a more balanced 24-hour load to the electric lighting company than many people realize. Those in the offices operate in the daytime and those in the homes operate mostly at night.

The portable Air Conditioner is one of the few *plus* load builders that I know of today. To illustrate what I mean—the replacement business in electric refrigerators this year will probably be at least 30 per cent and the new refrigerator, because of more efficient operation, will consume less than half as much electric current as the old machine that was traded in for it. It is also true that two or even three new 1940 radios can be operated at less electric current cost than the single radio of ten or twelve years ago.

This fact of more efficient operation resulting in less current consumption is true of one electric appliance after another. This means that as fast as old ones are replaced, the public utility experiences kilowatthour loss. I appreciate the fact that there are electrical appliances—most desirable ones—that have not reached any great state of saturation, but their development has been and will continue to be slow. They are not the answer to the kilowatthour loss that is being experienced by this replacement business in electrical appliances.

On the other hand, not only does the portable Air Conditioner give every evidence of a tremendous market and of phenomenal growth, but it is the one *plus* load builder for the electric light and power company because there is no saturation, and therefore, as yet, no replacement business.

Know Your Industrial Customer

(*Continued from page* 138)

ence that the average small industrial customer does not employ a trained electrical engineer and that he has hesitated, out of ignorance, trying to do something about correcting his condition in order to reduce his power costs.

The entire electrical industry as well as the utility is in a position to render a service to commercial and industrial customers through personalized contact with them. The ultimate solution of the problems involved will require the electrical industry to work with organized groups of trade allies for a common objective. These allies should include consulting engineers, electrical contractors, equipment manufacturers and the utility. In this way, there can be evolved an effective program of presenting the developments of electrical research and the services of the electric industry to our industrial customers.

It is recognized that we have greater opportunities in the '40's than ever before to serve our industrial customers and build business on a mutually satisfactory basis. Our failure to know our industrial customers may cause favorable developments to be minimized and minor evils to be exaggerated. Industry and the utility industry in particular should be mindful of the fact that its existence is of the customer, by the customer, and for the customer. Service to the customer is the test by which the usefulness of any business must be measured.

A price list of EEI publications will be sent on request to
EDISON ELECTRIC INSTITUTE
420 Lexington Ave., New York, N. Y.

The Redemption of Darkness

By Dr. William Elgin Wickenden
President, Case School of Applied Science

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

IN his long struggle toward civilization Man has been striving for two ends—one, to get more bread with less sweat; and the other, to replace ignorance and superstition with enlightenment. Science, which is merely an instrument for building civilization, bends all its efforts to these ends, to make human work more fruitful and to advance human culture.

Only short-sighted people see any conflict between pure and applied science. The conflict exists only in the minds of men—the impatience of the practical man with seemingly useless research, and the resentment of the researcher over seemingly extravagant praise and rewards for transient contrivances. In the long run the purest knowledge acquires practical value, and the most practical knowledge enriches human experience.

A little over fifty years ago an unschooled inventor was struggling with the problem of creating a small and interchangeable electric lamp. His method was to try every conceivable possibility in search of a filament which could survive the heat of incandescence. Thousands of experiments failed; at last one, suggested by the merest chance, succeeded. A carbonized filament of bamboo, stripped from a fan dropped carelessly by a lady visitor, supplied the answer.

Strictly practical knowledge this, but it held vast possibilities for the increase of pure knowledge.

In his later studies of the lamp filament, Edison discovered that the electric current not only caused it to glow with incandescence, but to shoot off streams of electrified particles into evacuated space. How vast the science of electronics and the art which has since grown from that discovery!

About the same time, a trackwalker on the right-of-way of the Nickel Plate railway, just at the rear of the Case campus, came upon a stranger fussing with a contrivance of mirrors. Noting that he was obviously not a surveyor, the track man accosted the supposed trespasser gruffly—"What are you doing here?"

DR. WICKENDEN

"Why," was the quiet, almost timid reply, "I am trying to measure the velocity of light."

"Well, why should anyone want to make such a fuss over a thing like that?" the questioner continued.

"Because it is such corking good fun." Corking good fun! The trespasser was the great wizard of optics, Michelson, and his fun lasted for a lifetime. When he died he was still trying for a more accurate measurement, using a vacuum tube a mile long. If Michelson thought of practical utility, it was to help physicists and astronomers probe more accurately into the mysteries of space. Actually his researches are of indispensable value to industry, which uses light waves as the final measuring rod in checking the accuracy of the gages on which modern precise production depends.

This interplay of practicality and culture is beautifully exemplified in the whole history of the art of lighting.

Primitive men used torches of pine and their descendants made little oil lamps to meet simple and immediate needs, without any thought of gaining new knowledge, yet they were creating one of the greatest forces for the spread of enlightenment.

Modern scientists have investigated the laws of heat, electricity and radiation, the properties of glass, metals and vapors, the nature and behavior of light, the structure and workings of the human eye, and the relations between seeing and bodily action, without any thought in mind but to learn the truths of Nature, yet their discoveries have become of immense practical value.

Ignorance is still the costliest thing in the world. Our knowledge of nature seems vast; actually it is like the scattered islands between the shores of an Atlantic of unknown mysteries. Truth grows like a coral island—a new fact added here, a new measurement there, and a new relationship elsewhere. Its heroes are mostly little known men, who have learned to cooperate. They have taught mankind the secret of cumulative progress, which does not need to wait for some messiah, some superman, but can be achieved through the organized efforts of ordinary men.

If ignorance is still the costliest thing in the world, the best investment we make is in the search for new knowledge. If only our politicians, who are so bent on policing industry, clipping the wings of enterprise and checking the spirit of discovery, could grasp it! You recall the visit of a Parliamentary Commission to the Royal Institution in London a little more than a century ago to see the fruits of Michael Faraday's researches in electricity and magnetism. With thinly veiled contempt, the Prime Minister turned to a seemingly useless gadget and asked, "Of what possible use is a thing like that?" "Ah! my Lord," was Faraday's mild reply, "some day you may be able to tax it!" What prophetic words! Last year, in this country alone, the great industry which grew from Faraday's gadgets poured into the public treasury more than a quarter of a billion of tax dollars, and this was only a minor fraction of the wealth produced, yet a sum far exceeding the entire cost to so-

ciety of winning all our knowledge of electrical science.

After a century of progress we are still unable to turn much more than 30 per cent of our coal pile into electrical power, and seldom convert more than 3 per cent of it into useful light, but the politician's answer to this challenge of ignorance is to police the kwhr with a rubber yard stick, rather than to spur the progress of knowledge.

Let us think together for a little while about the redemption of darkness. In it is the key to the northern spread of civilization from the east, and from the Mediterranean Sea across Europe to the lands of our fathers. That story can be retold in terms of heat and light. For most of us daylight hours are hours of work and the hours of darkness are the hours of leisure, when learning and culture are possible.

So long as there were no dependable sources of artificial light, learning had to be made a special business—something for priests, monks and clerks who could give their daylight hours to it. Until about 500 years ago, education was just a thin little trickle in the stream of human experience. There were long centuries when most men, even kings and princes, were quite illiterate, and learning had to be kept alive in monasteries. Books and writings had to be copied by hand, which was terribly tedious and expensive. Even the monks, who were the guardians of learning, are said to have read scarcely more than one book a year, on the average. The great mass of men found living so poor and so hard to get that they had neither time nor money to be anything but ignorant. Four centuries ago artificial light was counted among the almost prohibitive luxuries. A pound of fat for a dim rush-light cost four times as much as a pound of lean meat. There was thus a great temptation to sit by the embers of the fire and drink far into the night. The university student rose with the lark, attended his first lecture at 6 in the morning in a cold, unheated shed, sitting on a straw covered floor, and would be in bed by 8 or 9, simply because candles were incredibly dear. We call these centuries the dark ages.

Then two very significant things happened. Men learned how to print books from type, and they learned how to make reasonably cheap and efficient artificial lights. These were the work of simple, practical men, probably without thought for the refinements of culture, but the results were incalculable.

Immediately the dam which had so long held back the streams of learning began to give way. Books became cheap enough so that many people might have them, and leisure hours were redeemed from gloom and darkness so that men who had to work for a living by day could share in the riches of learning and culture by night.

Printing and lighting, two technical arts which we owe to the inventive urge of the modern age, have been the greatest forces in changing education and culture from a trickle into a mighty stream. The book and the lamp have become the symbols of a race of literate, thinking men. How blind to think of men who strive to improve the practical arts—our engineers, chemists, metallurgists and the whole tribe of inventors—as mere Philistines, as enemies of the human spirit and its culture!

But long after books and periodicals had become cheap and abundant, good light remained dear and scarce. The trouble has been that we knew how to produce light only as a by-product of wasted heat. A candle or wick dipped in oil could give us only one unit of light for two or three hundred units of heat. The kerosene lamp, the gas flame and the Welsbach mantle of our childhood were a little better, but only electricity has been able to give us safe, convenient and inexpensive light. Even at that, our best incandescent lamps give us back as light units only 12 per cent of the energy they consume, and it has taken 50 years of the most intensive research and experimentation to learn how to do that. By the use of metal vapor instead of a hot wire as a light source, we can go a great deal higher, but it produces light of an unnatural color and gets us into a lot of practical difficulties. Only the firefly seems to know the secret of cold pure light, and he is holding out on us. But of late we have been inching up on him with the new fluorescent lamps of remarkable efficiency. With all these unused possibilities, we can only predict for lighting science a brilliant future.

Because in the past, literature was abundant and cheap while light remained scarce and dear, we paid heavily for our gains in learning and culture, with our eyes. We paid most of this cost without realizing it at the time, only to discover later that our eyesight was being impaired.

The eye, it seems, is the most accommodating and uncomplaining servant man has. Designed by Nature for daytime use and for what we might call a rather coarse type of vision, it goes right on with its job when we give it fine work to do in only a tiny fraction of daylight illumination. It tries heroically to make objects seem at least one-tenth as clear when we cut the illumination down to a mere thousandth of full daylight. Just the same, the price of poor light has to be paid, only we pay it out of our capital, our eyesight, which we can't replace, instead of paying it to the lighting company out of our income.

Too often in modern life the symbols of a race of literate, thinking men have become book, lamp and spectacles. It often happens that the more obvious and elemental experiences are tardy in coming under the control of science. It has been so with seeing. For lack of fundamental knowledge, we have been content with dimness, where we should have had brightness, we have tolerated glaring surfaces where we should have had soft diffusion and in general have condemned our eyes, so long as they did not complain, to work in a borderland of strain. Perhaps the price in eyesight was worth while, so long as we couldn't help it, but now good light has become so abundant and so cheap that it is little short of criminal to pay for the education and culture of our darker hours with eyesight, rather than in electric current.

Everyone of us has a vivid impression of the great increase of value in the money we spent for our automobiles in the last 15 years. We look upon it as one of the miracles of modern industry, yet it is far outdistanced by the increase in what we receive for a lighting dollar.

How fortunate it was for the automobile industry that Henry Ford came along in its early years to cure it of its luxury complex, and how different the situation in the lighting industry today would be if some genius had done the same for it about 40 years ago. Today this luxury complex is little more than a hangover.

Going back 15 years in Cleveland we find that a dollar spent for electric current in our homes would provide only one-third of the light units we get today, and 20 years ago, only one-sixth. How short-sighted we are to buy our education and culture with eyesight instead of current.

Schools and colleges ought to be the leaders in this crusade, but I must confess with shame that too often we are not. We forget that there are two fundamental tools of education—the book and

the lamp. We educators, too, often fix all our thought upon the book—on the courses, the subject matter, the daily assignments—the classroom exercises, the written work—and proceed to forget all about the lamp, or perhaps leave that to the janitor. That is another way of saying that we have left education too much to scholars and literary men, and not enough to physicians and engineers.

It is heartening to note that oculists and engineers have been so active in launching this new campaign for sight-saving, and that they have tackled their job on the educational front.

This crusade for sight-saving grows more urgent year by year with the spread of adult education. There is an important difference between going to school and getting an education. In school we can do little more than learn how to learn, and real education comes afterward. This is the most important educational discovery of modern times. Take the artist for an example—he goes to school to learn how to see things with true perception, how to draw, how to make color discriminations, how to mix and spread pigments, and how to judge what it is that makes pictures good or bad; then he spends the rest of his life learning how to paint.

It is the same with all of us—when school ends, real education begins. One of the great objectives of education is to create in America a national culture, something as uniquely expressive of American life as Italian painting, music, literature, architecture and philosophy are characteristic of Italy. In this we have had little success as yet because we have worked so largely on children, who are subject to countless diseducating influences outside of school hours. Creating a national culture, which will unify and enrich the deeper feelings of our people is a job to be accomplished with adults, before we can pass it on to children, which means that it is primarily a job for our leisure hours. Without good lighting in homes and libraries, our ambitious plans for adult education can never really succeed.

Light, as we know it, is not a unique and separate entity. It is like one octave of notes on the keyboard of a grand piano. The new science of seeing has taught us much about the importance of this particular octave in the economy of living. But what about the other octaves in the scale? As yet we have only scraps of fragmentary knowledge. We know a little about X-rays and their value in diagnosis, in surgery and in therapeutics; we know a little about radio activity; we know perhaps less about the physiological values of heat waves in the infrared and the actinic waves in the ultraviolet. We know how to use long and short electromagnetic waves for telephony, radio and television. Radiation makes it possible for us to peer into the structure of metals and chemicals and tells us more about them than we can hope to learn from ordinary physical tests. These bits of knowledge are like brilliant stars and cloudy nebulae in the firmament of night. Surrounding them are vast areas of darkness, still unexplored, which await redemption. What possibilities for better living are concealed in these dark areas of our ignorance we can only imagine, but it is thrilling even to guess.

Science and engineering during the past century have been very busy shifting work from human muscles to machines in order to produce enough good things to go around so that everyone may share in a high standard of living. Some very difficult problems remain to be solved in distributing those benefits, so that everyone gets his share, but we have made so much progress in solving the technical problems of production, that engineers are now able to turn more of their attention to our human environment and comfort, to good lighting, to air conditioning, to getting rid of smoke and air pollution, to reducing noise, to banishing bad odors, to home conveniences, and other problems that touch our lives in an intimate and personal way.

Technology is moving on from its industrial revolution, from its power revolution, from its communications revolution, to a revolution in ways of living. This is our new frontier, today's equivalent of the geographical frontier which challenged our grandfathers. Only pessimists imagine that our engineers have worked themselves out of their jobs.

This campaign for better light and better seeing is important in itself, but it is more important as the advance movement of a great campaign for better living, which is going to keep engineers extremely busy for many years to come.

Overvoltages on Transmission Systems

FLASHOVERS are occasionally experienced on power systems without any apparent reason. Over a period of years many of these disturbances have been correlated with switching or with a simultaneous fault on some other phase, and such occurrences have therefore been attributed to transient overvoltages. Experience has indicated that this type of disturbance can be largely eliminated by the use of a system with a solidly grounded neutral. While many theories have been proposed to explain the cause and nature of such transient overvoltages and the relation of the magnitude of these voltages to neutral impedance, the subject has remained much of a mystery. This is readily understandable in view of the complications encountered in attempting to calculate transient overvoltages on a transmission system.

In the last few years new tools have been applied to the study of transient overvoltages, which have greatly enlarged our understanding of this phenomena. Recent studies have included the use of a-c network analyzers to study experimentally transient conditions on a miniature system, mathematical analysis, and observations of overvoltages on operating system. Engineering Report No. 30, of the Joint Subcommittee on Development and Research, which was published in 1934, gave the results of overvoltage observations on a number of operating power systems. The systems covered in this report include those with the neutral solidly grounded, isolated and grounded through various values of resistance. The data were collected through the use of automatic magnetic oscillographs the operation of which was initiated by abnormal conditions on the system. While these oscillographs came into operation very rapidly most of the first cycle of a disturbance was not recorded.

The most recent contribution to the knowledge of overvoltages on an operating system is contained in Provisional Report No. 29.* The data given in this report were obtained on a 44 kv. 550 mile transmission system with the neutral grounded through a resistance of 136 ohms. The data from this study are of particular interest since an auto-

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*Provisional Report No. 29 of the Joint Subcommittee on Development and Research, Edison Electric Institute and Bell Telephone System. Copies are available at EEI General Office, $0.40 to members; $1.00 to non-members.

Lighting the Way for Customers and Dealers

By Mrs. B. E. Marsh

Residential Sales Manager, Nebraska Power Company

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

TODAY I will present to you a field tried and tested plan by which we lighted the way for customer and dealer, and at the same time acquired a substantial increase in revenue for our Company. Every electric utility sales department in America can make as good or a better showing. We of the Nebraska Power company lay no claim to a monopoly on ability to carry out such a program.

But a definite and well laid out planned program you must have, I assure you. Not only must you have a planned program, but you must execute it with painstaking care.

One of those things—that has happened to all of us—occurred on October 1, 1939. On that date came a surprise announcement that the Nebraska Power Company was reducing electric rates. The reduction to the residential customers totaled $265,000 per year.

Steps were taken immediately to recover revenue, but not once during the whole selling program was the word "recovery" used. We launched an intensive selling activity which we called the "Mutual Opportunity Program" in which the customer, the dealer, and the Company all shared in the benefits.

For the customer it was an opportunity to re-invest the savings made possible by the reduction in greater use of electric service. For many years we had advertised "Electricity is Cheap," so we adopted the slogan, "Live Even Better—Electricity is Even Cheaper." To the dealer and other members of the local electric industry there was created a real sales opportunity. With electricity cheaper than ever before, the selling of electrical equipment was easier than ever before. For the Company, the rate reduction presented a service selling opportunity.

We had less than three weeks in which to get organized. One hundred salesmen were employed in three days. No advertisements for salesmen were inserted in the newspaper; the word spreak quickly and within a few hours a line of applicants stretched far down the halls. It was absolutely necessary that few mistakes be made in picking the right salesmen. This was all important because we had to train these men not only to sell our services, but also to be good representatives of the Company.

MRS. MARSH

We were allowed only 76 actual working days for the original sales campaign, which had these general objectives:

1. To call on every residential customer in Omaha and Council Bluffs.
2. To thoroughly explain to each customer the benefits resulting directly from the new lower electric rates, how he could use more service at no additional cost.
3. To sell each customer on the value and use of cheap electricity in terms of actual comforts and conveniences in the home—sell the fact that *Electricity is Cheap*.
4. To make a demonstration in every home 65,000 of them.
5. To sell the company as a civic institution which pays a large share of local taxes, contributes substantially to the growth and prosperity of the community.
6. To promote as extensively as possible the business of our dealer allies in all branches of the local electric industry.

Time did not permit us to train the salesmen on all of our electric services.

We decided to concentrate the training of the one hundred men on lighting alone and the Company's citizenship. While the Mutual Opportunity Program was organized as an All-Service sales campaign, *Better Lighting* loomed as the outstanding opportunity for immediate sales, because it offered an extremely valuable service to our customers.

In every sense of the word, this Mutual Opportunity Program was a hard hitting, fast moving, service selling campaign. To justify its expense it had to bring as much revenue as possible during a comparatively short period of time. The following services were designated as features of the campaign:

1. *Mazda Lamps*—which extend great benefits to the largest number of customers at the lowest possible investment.
2. *Silver Bowl Adaptors*—which provide sight-saving benefits and add materially to the charm and comfort of the home.
3. *Wall Lamps*—a highly desirable item at very little cost.
4. *I.E.S. Floor and Table Lamps*—which provide good lighting and a decorative feature at the same time.

Our entire staff of salesmen and supervisors, new and old, were given nine days of intensive training on all the services and appliances that our Company and our dealers sell. These classes were outstanding not only from the viewpoint of the excellent training given, but they were patterned after the manner in which national conferences were conducted, which gave them added interest.

Our executives, too, took an active part in the sales training and acted as chairmen of many meetings. Each one gave several inspirational talks of great value to the sales people.

Many unique contests were developed to create and maintain enthusiasm.

The activities of our All-Service salesmen, our home service advisors, and dealer advisors were coordinated to serve not only the new salesmen, but also the dealers. To the dealers we turned over all prospects for lighting fixtures and electrical equipment. Each salesman carried lists of dealers' names, addresses, and telephone numbers, and encouraged customers to purchase from the dealers.

When making each call, a personal presentation folder was left at the home by the salesman. This proved to be a most important sales tool and was the foundation of the entire customer contact program. This folder contained individualized facts and figures, and furnished to each customer a service account

analysis. It pointed out to the customer how many additional kilowatt hours could be used without any increase in their electric bills.

The sales training course was important, the pep meetings were important, the sales allies, progress bulletins, and the Company education were important, but to me one of the most effective sales tools we had was a special sales kit which we developed and which was carried by each salesman as he made his contacts. This was the demonstration which I stated was presented in every one of our 65,000 homes and which produced results. I am going to ask Miss Felicia Randall to demonstrate to you this sales kit as it was presented by our salesmen. The contents of this kit enable the salesman to show customers how they may improve the lighting in their homes, *once they have been sold the need for Better Lighting* and the cheapness of using adequate light, remembering always that while the Better Light-Better Sight story is old to us—it's new to them. . . . Miss Randall.

Miss Randall comes on stage carrying Sales Kit and says:

You have to be an All-American wrestler, as well as a salesman, to carry around one of these dainty little numbers, but our company took that into consideration when they hired the salesmen. As you can well see, not only from the job they had *to do*, but the sales tools they had *to use*, that this was no job for sissies. To handle this job a fellow must have a strong back, as well as a sales mind. Our sales crew look like members of one of those professional football teams.

The kit, when fully equipped as it stands now, weighs 24½ pounds—we kept the weight down as much as possible, but our enthusiastic salesmen wou dn't let a few pounds interfere with a good sales presentation.

We printed the Nebraska Power Company initials and name quite boldly on the side, so that customers would know instantly that this was *not* a salesman for smuggled rugs or smuggled furs.

As the kit is opened, the prospective customer sees a neat array of lighting adaptor equipment, which includes:

1. This very attractively designed, totally indirect adaptor using a 150-watt silver bowl lamp. Its uses in the house are numerous, in that it can be recommended for halls, small bedrooms, dens, and kitchens.

This unit fits on top of—

2. Five metal clamp-on shades which take 60 watt silver bowl lamps. These replace those horrible orange bulbs in that old five-light drop fixture generally found in living rooms.

3. Also another solution to that same drop type fixture are these fancier 60 watt silver bowl clamp-on shades.

4. Then to please the customer who does not wish to spend a great deal of money, we have this plainer 150 watt silver bowl adaptor which is recommended for kitchens and other small rooms of the home.

In the second compartment, we find:

1. A wall lamp, inexpensive to buy, and attractive to catch the eye. This piece, more than any other, can find an application in almost every room in the home.

2. Placed under the diffusing globe of the wall lamp are five *plastic* shades, which are also recommended for the five-light drop fixtures. Having these three solutions to one problem, gives the salesman the opportunity to sell on the spot something that would fit in with the color of Mrs. Housewife's fixture.

Compartment three was designed to house:

1. A kitchen clock. You may be interested to know that with all the demonstrating done with these kits, not one single clock was broken.

The fourth compartment was sort of a catch-all:

One bridge adaptor to be used in bridge lamps.
Five 60 watt silver bowl lamps for the metal and plastic shades.
One 150 watt silver bowl for the large adaptor.
One 100 watt silver bowl for the bridge adaptor.
One 10 watt A for the wall lamps.
One of the new 300 watt single filament lamps for replacement.
And a tool kit composed of—

Pliers
Screw driver
Triple plug
Double plug
Extension cord
Fifteen amp. fuse
Box of tape

Of course, no lighting kit would be complete without the light meter, which we had placed in the small straps on the cover of the kit. Also the salesmen carried this complete visualizer. It contains photographs of lighting equipment, prices of lighting equipment, and catalogs and prices of all major appliances that we and our dealers sell.

Perhaps you are wondering how the sale of I.E.S. lamps was effected. We had eight supervisors for these 100 men, and after the salesmen received orders for trial installations of I.E.S. lamps, the supervisor's responsibility was to take these lamps out, set them up, and call back after two or three days to close the sale or pick up the lamps.

Quite a few rabbits came out of this salesman's hat, didn't they? But being able to actually demonstrate to Mrs. Housewife what he knew would help her on her way to better seeing conditions made it possible for each salesman to make one sale to every 2.7 customers. I would say that this is ample proof that the kit worked.

Of course, I don't want you to think that we have measured the success of this campaign merely in terms of merchandise unit sales. It is the *USE* of these lighting improvements that count, both for the customer and our company, and that *USE* has shown up in *actual* revenue recovery.

We are proud to say that 65 of these salesmen are still with us and are still using the kit to sell.

MRS. MARSH: "Now, I am going to let some of our dealers tell you what they think of our assistance."

Here a series of recorded voices of Nebraska dealers was heard—photographs of dealers were projected on the stage. Excerpts from the recordings follow:

My name is MARTY FLYNN. I am the owner of the Flynn Electric Shop in Council Bluffs, Iowa. When the Nebraska Power Company first announced their cooperative light conditioning activity, I thought it was just talk, but I found out differently. They have done a great cooperative job in helping us sell—not only lighting, but also in the sale of all electrical appliances. . . . We have become merchants instead of order-takers.

• • •

My name is G. A. CHANEY. I am the manager of the Sears-Roebuck South Omaha store. . . . Through the interest and enthusiasm of your Dealer Adviser we included in our store remodeling job an Electric Kitchen. We are of the opinion that electric ranges will come to the front rapidly, and because of your cooperation, we will strenuously promote this product, besides lighting and other electric activities during 1940.

• • •

My name is ERNESTINE KELLY, and I have charge of the electrical appliance and lamp department of the Orchard & Wilhelm Company furniture store. The Home Service Advisers of the Nebraska Power Company have taken us under their wing, and now we are able to do a real light conditioning job for our customers.

• • •

My name is ALBERT KIECK. I am a hardware and appliance dealer at Springfield, Neb. From the first day I installed my Light Center, with the cooperation of the Nebraska Power Company, I have found it to be a highly efficient salesman of light bulbs and lighting equipment.

• • •

L. CLANTON is my name. You might not think I am interested in lighting or electric appliances, because I own a grocery store, but we have a Light Center in our store, and we do a good business with it. The Nebraska Power Company showed us how to merchandise lighting, and our profits from our Light Center are as high as those from any department we have.

• • •

I own two drug stores in Omaha. My name is Leo Thull. I have a Light Center in each drug store, and thanks to the cooperative efforts of the Nebraska Power Company, both of them are doing good business. All of you should encourage druggists in your communities to install Light Centers, because good lighting is just as important as any of the medicines these druggists sell.

• • •

I am LOIS FERRIN. I am buyer for the lamp department of the Brandeis Department Store. We never knew how to sell lamps properly until we took advantage of the training course furnished by the Nebraska Power Company, and now we not only know our lamps, but we know lighting, and know how to sell lighting, too.

• • •

ED JOOS is my name. I am the owner of the Joos Electric Company. Through the advice and counsel furnished us by the Nebraska Power Company, equipment for good lighting has become one of our most important departments.

• • •

CHARLES KRESL is my name, and I am manager of the O. K. Hardware Store. The Nebraska Power Company has shown us that in order to tell, you must know—and in order to sell, you must tell. We know good lighting—we tell good lighting—and therefore we sell good lighting equipment.

• • •

We are the NELSON BROTHERS, the owners of one of Omaha's oldest electric companies. We have a fine Light Center, and we do a good electric equipment business because of it.

• • •

Any Penney store manager can be interested in good lighting. I am P. E. KOCHER,

manager of the lamp and fixture department of J. C. Penney & Co. in Omaha, and we have made good lighting pay dividends to our department.

• • •

Let me present to you now—NED S. Reeves. That lamp trophy he is holding was awarded to him as vice-president of the Wright & Wilhelmy wholesale hardware firm. This trophy is known as the J. E. Davidson Lamp Award, which is given to the distributor showing the largest increase in lamp sales one year over the previous. He won it for 1939. This award has greatly stimulated lamp sale activities among the distributors.

• • •

I am Dr. O. J. MELVIN. I have been interested in eyesight conservation for many years. In connection with my work, I have had the full cooperation of the Nebraska Power Company, and through them I have had full cooperation of dealers in lighting equipment. True, the Eyesight Conservation Council in Omaha has produced revenue for the power company and sales for the dealers, but while doing this, many precious eyes have been saved and much lighting comfort has been created in homes in this territory. You ladies and gentlemen at this conference owe it to your customers to bring to them proper lighting to protect precious eyes.

• • •

Mrs. Marsh resumes:

The figures below show the comparison of Nebraska Power Company and Dealer total lighting sales for the last three months of 1938 and 1939.

	1938	*1939*
Mazda Lamps	201,066	312,000
Adapters	0	8,476
I.E.S. Floor and Table Lamps	2,250	8,899
Wall Lamps	1,018	8,783

The results of this lighting activity in dollars and cents to our dealers and to our company were extremely gratifying. As Miss Randall said, these salesmen sold the *use* and the *cheapness* of *better lighting*, and the lighting was improved in 38 per cent of the homes our salesmen called upon.

Although our goal was to light the way for our customers and dealers and create additional business for our Company, we kept foremost in mind that nothing must mar our good customer relations.

"Maintain good customer relations" —we stressed at every meeting of our salesmen. Our supervisors checked the salesmen's actions and their sales canvasses constantly.

During the whole campaign we did not receive one complaint from our 65,000 domestic customers, but many letters were received from them praising the work of individual salesmen. When the campaign closed, we truly felt that t was a mutual *opportunity program.*

Now just a word about follow up of the campaign. These salespeople continue to operate on an *all-service full coverage* sales program. Every salesman and every home service girl knows the No. 1 need for more electric service in almost every home is still better lighting, so they continue to *sell Better Lighting* on every call. True, they look for and sell other most needed services, too, and they are especially trained to restore to use appliances which customers own but seldom, if ever, use. Thus you see they are definitely not mere appliance salesmen. They are, on the other hand, trained advisors in all economical uses of electric service for better living. And in an even broader sense than the campaign I have described, isn't that

Lighting the Way for Customers and Dealers?

Effective Coordination of Dealer-Utility Selling

(*Continued from page* 150)

promoting them everlastingly if we are to get a fair share of the consumer's dollar in competition with other industries —and if prices go too low too fast, the dollars that are going to be needed to do the necessary promotion work just aren't going to be there—even though margins are maintained.

Now, I think I understand something of the relationship existing between volume and cost. But this relationship is not fixed, and is definitely circumscribed by the limitations, at the moment, of any particular product. The relationship varies. In one case, intelligent analysis may point to the desirability of evolutionary price reductions as volume increases—in others perhaps revolutionary price reductions may be in order to *produce* volume.

Of course a knockout price will produce a lot of "sudden volume" *while the price is NEWS*—but when it ceases to be news, as it inevitably will—and if someone has miscalculated on the volume that will result from price appeal alone, I wonder what will be used for money to promote the product.

For if the promotional dollars *aren't there* and price alone loses its appeal, then not only the manufacturers but also the Utilities—the Wholesalers and the Dealers—are going to be *hurt.*

The fact remains—Electrical Appliances have to be sold. They must be promoted. Earlier I said that our best visible means of expanding our sales frontiers was through the continuation, unabated, of our National Cooperative Sales Programs.

And they were never more needed than they are now, because not only are they the best visible means of expanding our sales, but because they are focal points of community interest, community loyalty and community self-sacrifice, through which the various branches of the Industry have been brought into closer harmony and unity.

You will agree, I think, that this result is desirable, for greater unity among business interests was never more needed than it is now. Certainly as private business becomes less private—as it is surrounded with restrictions of one kind or another—the areas of individual effort become more and more circumscribed. As a result, the areas of collective effort or group action have been widened, greater unity of business interests has become more and more desirable, and trade association services of the type furnished by The Edison Electric Institute and The National Electrical Manufacturers Association have become more and more essential.

Finally, and without overlooking the jungle proclivities which are to greater or lesser extent inherent in all business men, I submit to you that any national program in our Industry, to be successful, must be founded upon mutual benefit, mutual respect, mutual sincerity, and mutual cooperation among the various branches of the Industry—their continuation and success is and will continue to be dependent upon an appreciation of the problems which confront each cooperating group, and the ability of the program planners to protect the interests of all parties involved, including the public.

Certainly no program which has been developed to date denies the right of a fair return on its services to any branch of the Industry.

But just so sure as the success of the National Programs is only the sum of local successes, so the National Programs can be wrecked if local operations destroy mutual respect, mutual sincerity, mutual cooperation and mutual profit in the local markets.

Perhaps we should all give some serious thought *now* to the long range destructive aspects of some of these things to which I refer—it is not too late to correct them.

Upon their correction depends the future effective coordination of utility manufacturer selling.

Selling the Farmer

By T. V. Houser
Vice-President, Sears, Roebuck & Company

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

WHEN I was first asked to appear on this program, I refused on the basis that the subject, "Selling the Farmer" involved nothing different than selling any other group of people engaged in other occupations. It was pointed out, however, that the firm I represent, Sears, Roebuck and Co., has been enough of a factor in the sales of electrical equipment and appliances in rural areas, to interest you in hearing more about us.

So first I will give a brief outline of our operations, and then some suggestions whereby we believe your interests as power producers and the interests of distributors of electrical merchandise can be improved.

Sears' business is secured, as you probably know, through the issuance of catalogs resulting in orders being mailed to us, and through the operation of Retail Stores located in medium size and larger cities. The catalog caters to rural trade, small hamlets, small cities, particularly those which serve an agricultural trading area. Sears has a background of some 54 years of dealing through the mails with farmers under a policy of "Satisfaction Guaranteed or Your Money Back;" so we start with one tremendous advantage, the confidence of the customers we are to sell.

I can not talk about selling without commenting on the merchandise itself, as what often passes for clever salesmanship or a clever promotional scheme is really public recognition of good merchandise at prices customers can afford to pay. We do relatively little business on merchandise bearing a manufacturer's trade-name. We employ the practice of having goods manufactured according to specifications determined by our buyers. Such goods bear a trade-name exclusive to Sears, and therefore these trademarked brands are available only at Sears. I do not mean this in a hard, inflexible way. We have hundreds, perhaps thousands, of articles of manufacturers' open lines for sale in our business.

MR. HOUSER

As a rule these are articles with relatively small individual sale, although important in the aggregate. But you are interested in using electrical energy, and I refer to water supply systems, motor driven devices, lighting plants, household appliances, etc. All such items are Sears exclusive brands.

In buying these lines of merchandise, manufacturers are selected, as far as possible, who have decided to secure distribution of the products they manufacture, primarily through a system like Sears, rather than through other distributive channels. Our buyer then works with the manufacturer in establishing specifications and designs. The buyer offers this electrical item for sale in the catalog and on the floor of hundreds of stores throughout the country. Thus, you see all decisions are determined in one place for a group of outlets, and no money has to be spent by manufacturer, or anyone else, to place such articles in front of the rural customer.

Speaking of manufacturing sources, a survey made three years ago indicated that 294 manufacturers have a record of business with Sears extending for more than 25 years; 1292 for more than 15 years; and 70 per cent of the total firms dealt with have a record of over five years. As the late Mr. Julius Rosenwald used to say, "The country is full of millionaires who have made their money selling Sears at less than cost."

You are interested only in the kind of goods Sears sells from the standpoint of whether the user of such merchandise is a satisfied user of electric power. Dissatisfaction resulting from shoddy, troublesome merchandise reflects on you as well as on us, and slows up the acceptance of electrical installations to that degree.

I have referred to the economics underlying our business only to the extent necessary for you to understand why quality products can be available to the farm market at prices acceptable to the greatest number. The quality of a piece of merchandise is affected only by the materials and direct labor expended on it in a factory. From then on, everything else expended in getting that article finally to a dealer's floor and then finally to a customer's home does not add one bit to the intrinsic merit of that article, even though it may keep many people occupied.

Our policy is to constantly study the need of the rural market (as well as the city market) and develop the kinds and qualities of goods best suited to such markets. A corps of 185 people in Sears laboratories, development and shopping departments is devoting its time to the continual study and checking of these basic matters.

Now, let's talk about the farmer. What does he look like? In the first place, the farmer is a capitalist. He has fixed assets and current assets. He has overhead and direct labor. He has liabilities, often long term and short term. He has profits and losses. Sometimes these matters are not recognized by the people attempting to sell him. He looks at a piece of merchandise either as a piece of equipment which will save in

operating expense sufficient to pay for its cost, or as an article for the home which must be paid for out of profits of his business. He has a sound sense of values, is not as gullible as city people, is not as easily impressed through superficial appearances or arguments. He is honest and fair. He is deliberate and slow to make up his mind. If I could make a composite of the farmers who send millions of letters to us yearly, these would be the predominant characteristics.

So we come to the matter of selling this farmer your product and ours. Power is no good without equipment, nor equipment without power. Dealers, including our stores, have to pay expenses and make money out of the sale of equipment. Similarly I assume you have to make profits out of the sale of electrical power. Some of you conduct a merchandising business, promote the sale of equipment articles, and operate as such on a merchandising margin. Still, I believe that the net profit on your merchandising operations would be small against your real business, the production and sale of power. So in my discussion, I assume a common interest between you and all retail stores, an interlocking enterprise whereby the welfare of both parties can be best served through the closest integration of these two activities—the sale of power and equipment.

I said at the beginning that selling farmers is no different than selling other customers. I could recite some differences, such as the added expense and difficulty in having advertising material reach him as compared with the newspaper reaching metropolitan readers. Distance from point of sale is a problem involving as it does added costs in deliveries, servicing calls, and things like that. These are details, however, to be decided by any merchant on the basis of local conditions. The simple fact still remains that most sales result from the farmer coming into a store, looking at the goods, comparing qualities and prices. If it is a piece of farm equipment, he wants to know all about the operating expense, the resulting saving in time, or any saving in costs of performing a given operation, how long it will last—just the same as any business man considering the purchase of an item of equipment for his business. If it is an article for his home, not only first cost, but the expense for continued operation is exceedingly important and must be answered.

This is hardly the place to discuss details of selling technique. It all boils down to determination of prospects and solicitation of business. Each merchant must decide for himself the length to which it is practical for him to go in employing salesmen for follow-up of leads, and the many obvious devices for securing leads. Let me say that the most important part of selling, in my opinion, is concerned with the intelligent handling of customers who visit a store and are interested in inspecting any given article. We have hundreds of Store Managers who naturally try a great many selling devices. Even such matters as display trailers or display stores, attract some outside comment. All these are interesting, but not important, and the simple truth must be faced that nothing takes the place of knowing a customer, knowing his problems, and knowing your own line of merchandise.

I stated that the extension of electric power into more and more homes in the country, and the wider use of electrical equipment by the people having wired homes, is a common enterprise between utility and retail store. Let's look at some of the things where this unity of interest is not recognized or not utilized to the fullest degree.

In the first place, many utilities own gas properties as well as electric. They want their customers to use equipment in the way they are set up to serve them best. They want customers to use electricity for lighting and appliances, but gas for cooking or hot water supplies. Now this is understandable when dealing with city people, but when this antagonism to the use of electricity for cooking or water supply carries over to rural customers, as it sometimes does, it is obvious that a market exists which is not understood and consequently not fully cultivated.

Some utility companies have lower rates for cooking, but do not offer comparable low rates for water heating. Customers want to use the same kind of fuel for water heating as is used for cooking. Even though the rate for water heating should be half or less than that for cooking in order to be competitive with other fuels, the point is that you should look at the average return of the two services because many people will not put in one without the other.

As a merchant, rate structures and rate classifications seem much too complicated for the ordinary customer to grasp. A merchant learns that even the simplest thing has to be repeated over and over before a customer understands. A complicated formula is never understood. A farmer much more than a city man wants to know the cost by the month of using the electrical items he is considering. All that you can do to simplify these complicated structures so that retail store, salesman and customer can better understand them would be of mutual help.

Manufacturers and distributors face unnecessary complications from the lack of uniformity and even inconsistencies in merchandise requirements from various utilities. For instance, on electric water heaters in some areas, utilities insist on units with single elements and in some areas on heaters with double elements. A utility company in one town will insist in having a 750-watt element in the bottom of the heater and 2000-watt element in the top of the heater, whereas in the next town, a few miles distant, the requirement is a 2000-watt element in the bottom and a 750-watt in the top. Lack of standardization, as you all know, increases the cost of merchandise to the consumer without adding to its value. If utilities could agree on standards, determined say by Underwriters Laboratories or Electrical Testing Laboratories, costs to the consumer could be saved, and wider distribution effected by eliminating the expense of making changes in equipment to satisfy the technical staff of individual utilities.

I would like to relate what happened in a city in Indiana as a result of working along these lines. The utility adopted a simple rate of a flat 1c. per kwhr on all over 180 hr. It adopted a simple specification on water heaters that the elements be equal to 50 watts per gal storage capacity and required the Underwriters Laboratory approval. Installation cooperation was worked out. As a result, Sears sold exactly 19 times as many heaters in 1939 as in the previous year.

When it comes to wiring supplies, standardization of equipment between various utilities would lower costs and tend to make electric power available to border-line customers. Service entrance equipment requirements are particularly complicated. Here again if uniformity and simplification could be worked out, it would be in the public interest.

The antagonism which prevailed some years ago between the merchandising departments of utilities and selling distrib-

utors has fortunately pretty well died out, and a more enlightened view prevails. I wonder, however, how many of you realize that in your Service Departments there is often a carry-over of that old feeling. You are interested in building up a larger and more uniform load, and I believe an educational campaign, emphasizing this point to your entire organization, particularly Service Departments, would be a very constructive step in this direction.

We all do a very poor job with water supply systems. As you all know, in every survey of farm homes, running water supply ranks near the top of wanted improvements. After power is available, however, the number of customers who install a water supply system is very small in comparison with those who desire one. Here is the kind of electric load you want, and running water in the home opens the way for so many other lines, whether heaters, modern kitchens, bath rooms, that a cooperative effort to develop this market might be worked out. The problems and cost of installation of water supply systems is no doubt an important obstacle to the wider use of such systems, and there is room for constructive work and simplification here.

I mentioned before that dealers in electrical goods and utilities have a common interest. I made a note of a number of ways in which this common interest has been recognized at different points throughout the country. Retailers and utilities could both do a lot more business if these ideas were more widely adopted. For instance, utilities could furnish Retailers with their sale promotion program for the ensuing few months, copies of newspaper ads, if prepared, radio programs, window displays, etc. In the case of newspaper ads by utilities, opportunity should be afforded all dealers to tie in with their own paid ads on merchandise covered in the utility ad. Retailers also then have the chance to tie in with display windows, etc., so that the public sees concerted action along one line.

In some cases, display space is provided by utilities for the exhibit of the appliances sold by Retail Stores. There are many more places where such displays could be provided and where broader policies could be adopted regarding lines competitive with those carried by the utility.

I could cite innumerable cases where important items like electric stoves or heaters were dormant until the matter of installation was solved. The Retailers' margin does not permit the absorption of this expense. Therefore, when this item of cost was put up to the customer, the result was no sale. As utilities in different places have seen the wisdom of providing a part, at least, of installation cost for the consumer, sales have started. This point will have to be recognized generally if such articles are to come into fullest use. A variation of this point, employed in some places, is the allowance made to the Retailer for the sale of various articles, which can then be expended in whatever way seems to be most effective.

Utilities should advise Retailers when new electric lines are being installed. Some companies compile for Retailers lists of people who have signed up for service, a few even indicating the items in which the customer is interested. Information, as you all know, is available from Washington regarding REA lines, but this seems a long way around, when the local utility and the local Retailer ought to get together.

In some instances, employees of utilities selling major appliances are paid on the basis of total sales for a given area, which includes sales to Retailers as well as their own company sales. This again is recognition in a practical way of a community of interest between utility and distributors of electrical goods. This often results in having a dealer representative who works with Retailers in matters of better display, advertising programs and, most important of all, training salespeople on Retailers' floors. I do not know any more effective way you could extend your number of customers and load per customer than to see that the people who meet the public on the floor of the various distributors of electrical goods are competent, well trained and understand their merchandise.

Another variation along this same general line is the practice in some communities of furnishing Retailers with names of customers who have certain major appliances, but do not have others. This practice provides excellent prospects and, of course, like every other suggestion contained in this paper, I am sure that a way can be found by utilities to treat all distributors fairly in connection with these various selling helps.

Often utilities compensate their employees for turning in sales leads, regardless of whether the customer purchases the article from the company or from a Retailer. Splendid results are reported where this practice is employed.

Many utilities provide the services of some trained in home economics, who follow up, in the customer's home, the purchase of major articles, whether sold by utility or Retailer. They advise the customer regarding the use of such appliances during that first critical period when a housewife is first learning and report back difficulties or otherwise. Closely allied to this are the demonstrations or cooking classes, such meetings being rotated around cooperating Retailers. There are cases where utilities have provided demonstrators permanently to concentrate on specialty items like roasters with resulting stimulation of business.

Some utilities run contests among all Retailers, with prizes to salespeople. They send a representative to hold pep meetings of salespeople and create enthusiasm thereby. Utilities, likewise, have gone so far as creating a dealer's sales division which works with Retailers on cooperative measures. We receive considerable benefit where this is done, as I presume is true of other Retailers, and I am sure that such evidence of cooperation develops a fine spirit among all distributors.

Many times extensive campaigns are designed either to increase the sales of specific appliances or to increase the general load. Generous allowances of one kind or another are made to customers, prizes given to salespeople; participating advertising arranged. Cooperative campaigns of this sort can produce splendid results with benefit to all concerned.

Some utilities set up a contact man who is known to Store Managers and Heads of Departments selling electrical goods so that any needed information required by salesperson or customer can be quickly secured.

Now obviously no single utility does all of these things, at least certainly not all at one time. But, it is equally true that utilities in general have not adopted universally any single one of these sales building methods. I wish it were proper for me in this connection to mention the names of some of the public service companies who have blazed the trail along this line and who saw much earlier than the rest, the community of interest between themselves and all those engaged in selling appliances to be used on their lines. Our files bulge with splendid examples of this character, but there are

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The Department Store As An Outlet for Electric Range Sales

By Herschel Lutes

Divisional Merchandise Manager, The J. L. Hudson Company, Detroit

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

THE two industries represented here — electrical manufacturing and utility—are to be highly praised and congratulated for their aggressiveness and the splendid job which they have accomplished. Your return is the high admiration of the country. You are also to be congratulated on the excellent progress which you have made in developing electric ranges from the technical, as well as the style viewpoints. Certainly the electric range today is a far different appliance than it was a few years ago.

But I am sure you did not invite me here to visit and to pay compliments. On the other hand, I feel that you want me to speak freely and express the thinking of some department stores generally.

Some of these things will not meet your approval, just as we do not agree with several of your practices. I am sure we both understand our interests are mutual and at the same time, there are always details which have to be debated before a satisfactory compromise can be reached.

First of all, we can eliminate entirely any consideration of the matter of pioneering or introduction of electrical appliances. We undoubtedly agree that this is a job of the manufacturer and of the utility. However, when this pioneering interferes with the regular legitimate operation of the retailer—that is when we think that you people are not only trying to do your own job but are trying to do ours also—then the matter becomes ripe for mutual discussion.

This talk has to do with items having a general public acceptance and for which there is already a demand. It has to do with what we call legitimate merchandising and distributing activities, and primarily large or major appliances.

In the comments to follow, there will be frequent reference to advertising which does not at all refer to pioneer advertising or the creation of a demand for the product—but it does refer to the merchandise advertising and the dictation and dominance of methods of direct selling, committing us to price, terms, etc.

MR. LUTES

This is not the place to go into a detailed discussion of merchandising practices which rightly belong in a convention for that purpose. Therefore, we will dispense with a discussion of any such matters as number of lines to carry, salesmen's commission, trade-in allowances, supervision of salespeople, slow selling, planning a sales event, advertising, competition, displays, leads and follow ups, cold canvassing, personnel, delivery, maintaining service, *et cetera.*

I am here at your invitation. I have given much time and thought to this talk. Certainly it would be unfortunate if it were misunderstood, or if in my text or delivery, you should get an unfavorable reaction. Certainly, I hope my presentation will convince you I am both sincere and friendly.

We believe that most of you people here are vitally interested in the adequate protection of proper trade channels, and are somewhat unfamiliar with details of vicious price cutting and unfair tactics. We think you are rather cloistered as far as details of distribution are concerned.

My subject is "The Department Store as an Outlet for Electric Range Sales." We assume that the other outlets would be specialty stores and furniture stores. Naturally, we think that we are the logical outlet for this merchandise because it is to some extent replacing regularly accepted merchandise items which we do merchandise profitably.

The department stores have many advantages in the field of distribution of electrical merchandise, chief of which are as follows:

1. Have the buying good will of all communities.
2. Traffic—more people see the full line display instead of short line specialty displays.
3. Customers more approachable and in a friendly buying mood in stores.
4. Listen with more confidence, and accept sales arguments.
5. Have charge accounts and constantly use their credit facilities.
6. Have confidence in a guarantee—means more than manufacturer's guarantee.
7. Trust stores for service or adjustments.
8. Read store advertising regularly—it is productive and read by more people.
9. Stores considered natural source for buying all needs. They buy their other merchandise there.
10. Personnel turnover not so great as specialty operators.

In addition to these advantages, we department stores have the following specific advantages on the sale of electric ranges:

1. Electric model kitchens, Kitchen Planning Department, and window displays.
2. Home Advisory Bureau — cooking schools, extensive publicity.
3. Elaborate participation in Fairs, Builders' Show, Range Show, Housewares Show, etc.

But the department stores also have many limitations and handicaps among which are:

1. Limited service, installation, and repair facilities.

2. Sales technique not effective for specialties—needs more efficient salesmen and supervisors—not order takers.
3. Promotes price bargains too much.
4. Should accept all reasonable deferred payment business—not wild schemes and long terms.
5. Should be more aggressive in advertising deferred payment. Advertise terms and down payments and feature demonstrations.
6. Should solicit and follow-up customer inquiries consistent with the dignity and reputation of the store.
7. Credit office must accept reasonable business and aid in getting business.
8. Stores turn down so many propositions daily that we develop a mental negative attitude.
9. Should keep the manufacturers' good will and maintain a high code of ethics and trade relations. No browbeating or attitude of superiority—no broken appointments, etc.
10. And last, we must have the help and complete cooperation of the utility. We, as merchandisers, must have the full aid and assistance of manufacturer and utility. The combined pull is what counts in teamwork.

The fundamental differences in the operation of a Department Store and specialty selling organizations are that the specialty organization:

1. Spends more money for publicity.
2. Spends more for selling commissions.
3. Makes more radical statements in selling and advertising presentation.
4. Takes more aggressive attitude toward solicitation and high pressure selling.
5. Advertises and features lower down payments and longer terms.
6. The principal reason for the existence of the specialty organizations in the sale of high priced electrical appliances is the fact that they can operate with a very low merchandise investment, a low overhead, can use the department stores and utility companies as showrooms, and can offer large price reductions to their customers. This is their greatest weapon. Actually, the list price which the manufacturer places on most of these appliances is nothing more than a yard stick by which the customer can measure the dollar savings she is making from the established list price.

We have mentioned the advantages a department store has in selling ranges and also its disadvantages. We have summarized the principal points of differences in operation and we have stated what department stores will have to do in order to accomplish a better job. It now seems advisable to point out some similar facts regarding the manufacturer and utility operations.

I note on the program that another speaker is to discuss the subject of meeting obstacles in promoting electric cooking, some of which I have pointed out here. But that gentleman will show *how* some of these problems may be solved where I only point them out. These obstacles must be surmounted, if the department store can share with you the promotion and sale of electric ranges. It is gratifying to find more and more utility companies assisting as Detroit Edison Company does in our city, in paving the way for greater sales.

The utility job is to aid the retailer —not sell against him. The utility should spend its money and effort helping the retailer make more sales—not competing with him—and not trying to control his every action from advertising to profit.

The utility should aid the manufacturer until the product is an accepted item of demand—then the aid and partnership of the utility should be swung from the manufacturer to the retailer.

In Detroit we are particularly fortunate in having a utility that tries to build a market for the dealer and to aid the dealer in selling but does not oppose or compete with him. The dealer range sales have now surpassed the utility sales and are fast increasing due to their wonderful cooperation.

There are many difficulties in approaching this maket because of varying degrees of public acceptance. Developing public acceptance is, to a large degree, the obligation of the utility, although the department store makes a valuable contribution when it gives its display space, demonstrations, advertising, and familiarizes the store traffic with the electric range in connection with other items of household equipment.

In Detroit, of course, our utility has already created this demand and we hope and believe we are now at a point where it is merely a matter of merchandising to price and value.

Having created this public acceptance, our next biggest job is to create the proper rate. Even if a woman is sold on the idea of electric cooking, or has used an electric range elsewhere, she is not going to buy an electric range unless the rate is competitive with other methods. That is the concern of the utility company and, unless the rate to promote electric cooking is available locally, it is obvious that there will not be range sales by the local department stores.

Again, our good Detroit Edison have met this situation.

And having these problems properly handled there still remains a very important necessity. A supplementary sale must be made with this device—the installation and wiring. Here another branch of the electrical industry is responsible. The cost of range installation varies widely in the United States. We are fortunate in being in a city where the utility company, through research and development, has brought about one of the lowest cost wiring for range connection. There are some other cities where the department stores are in a preferred position as to rates for electric cooking and wiring costs.

The cost of the product is the responsibility of the manufacturer. But this is a broad subject. We certainly do not agree that the retail price is also his exclusive problem. We have a mutual interest in keeping it low. While the ultimate price depends on the method of distribution, this price should give the dealer the profit he considers fair and necessary.

A lot of manufacturers want a job of retail distribution done but they think the margin required by the department store is too high. So that they decided to do their own distributing or have it done through cheaper channels. They pay enormous advertising costs, enormous distribution costs, and many unneeded expenses. If they really analyzed the situation, they are probably paying much more than they would have to pay for a regular retail job done by retailers and this is not the worst. They are not getting the responsibility for performance and service that they would get through the regular channels. Sometimes it doesn't pay to economize. Indeed, many times the seemingly more expensive is really the cheapest. You finally did give us the profit we need on refrigeration but there were so many other factors involved by the time we got it that it didn't do the job it could have done if it had come at the proper time.

Pick up any national magazine or newspaper—it is so full of ads that you can't read the news and articles. Manufacturers are just competing with each other to see who can waste the most money on publicity—and they and all their salesmen are bragging about it. They boost up the number of pages so it is humanly impossible for anyone to read more than a small percentage of the total ads—thus not only wasting money but also depreciating the value of all of your advertising cost. A small percentage of the same expenditures by all would create a magazine that would be readable and where the customers might possibly read several of the ads.

So stop wasting half of your money in national advertising—and three fourths of your posters, circulars, shows, conventions, etc. Do a little more locally and save the rest for selling. Recognize that the heavy gains in refrigeration sales are from local — not national advertising.

Locally is where the customers are. You have been pot shotting with buck shot and your competitor has been using a rifle.

And yet when retail dealers ask of the manufacturers a decent profit they say that it isn't possible. I do not mean what these gentlemen consider a satisfactory profit for us—I mean what we consider to be a satisfactory profit for ourselves. Please let us determine what is satisfactory and you will get much more volume than you will by trying to tell us what we want.

You manufacturers have plenty of money to do anything else in the world except pay the retailers a decent profit. You spend millions on campaigns for this and for that pet scheme of yours, but think how much more merchandise these millions would have distributed if they had been put in the regular retail channels.

Manufacturers have money for every kind of a drive you can think of to defeat or bypass regular distribution. They seem obsessed with the constant desire to outdo the retailer at his own game.The trouble is they are not only trying to manufacture but they are trying to advertise, to distribute, to sell at retail, and trying to do all these things, but insist on controlling and dictating all the possible functions which would normally be left to these various people. You "dictate" and control their entire life blood.

Give your own organization and your associates in Distribution an opportunity to develop and use their own ingenuity and their own resources. Give the retailer a real chance to do his job, the way he knows it ought to be done. And pay him some of the money you are wasting elsewhere.

I am quoting from one of your own electrical magazines which says that "department store *Dictators* see nothing but red." It speaks of "belligerent blindness." We put "a premium on order-taking." (I might explain that this is because you don't give us enough profit to pay the salesman.) We are "sale and price conscious." We are "beat the day" minded, and "always conducting bigger and better sales events," at "lower and lower" prices with "less and less margin." We are "more and more forcing at greater and greater promotion expense and we do less and less long range planning and thinking." Our "mechanized merchandising" has "destroyed the incentive of the real buyer."

It will be granted by any fair-minded retailer that we are subject to a lot of these criticisms but perhaps in not such a vehement phraseology. It is also true that stores, according to national figures, are losing money. However, I would like to suggest that any of you who are thoroughly convinced that they are practically bankrupt should just try to buy a single store.

We haven't any more confidence in so called specialty merchandising methods than you have for our calico and dry-goods practices.

It often seems to us that you manufacturers break every tradition of retail distribution one year—and the next year you have abandoned many of the practices you have adopted the previous year. We doubt if you know where you are going, either in distributing or in running our retail business for us.

Your whole campaigns seem built for a dealer who knows nothing. We wonder every year how many impractical schemes you will make us turn down again—and with sinking heart watch your expensive effort go to waste—when we need money and profit to do a good retail job. . . .

Profitless merchandising has never permanently h e l p e d distribution — it bankrupts dealers and causes the public to refuse to buy later at regular prices because these prices seem high after having been cut.

There is another important subject—that of wholesale selling at retail or so-called discount houses. Because of the splendid job done by Mr. B. B. Zients in New York last January and the extensive publicity it received, it seems unnecessary to more than touch upon that subject here. However, it is of vital importance.

It is true that you have made a little progress and the magazines have been bragging about the marvelous increase in range business. If you keep on faithfully and well the way you have been recently, then in 10 years or so you may be able to get into volume production on electric ranges.

You r e f r i g e r a t o r manufacturers wouldn't listen to us for seven long years. We asked you, we pleaded for something with which to meet certain competition and we pleaded for certain features at a price range. We asked you then for exactly what you have given us now. But then you explained that we were seeing ghosts and hobgoblins. You explained it was impossible to meet our demands because of your national advertising expense and because of your overhead and you explained that we were wrong in assuming that you would ever be able to do it. You said the other fellow would go bankrupt and you said his service expense would be entirely too much and you said he wouldn't be able to keep it up—you said about everything but you didn't give us what you are now giving.

When you refused to listen to our pleas about refrigeration, we were forced to protect ourselves by private brands. At first they were merely a defensive tool but because we happened at this time to be sound in our diagnosis of the situation, then they proved to be more than a defensive tool. They developed into a real item.

We are *not* particularly anxious to sell private brands. We would like very much to work with and help you manufacturers distribute the product you make. But you won't let us. You think you know what we ought to do and you try to make us do it. You tell us you know what price we ought to get and what profit we ought to make and you try to force us to abide by them. You know what our advertising and merchandising policy should be and you try to make us follow the right path. Once in a while some of you pretend to consult with us as to what we need and then say that we are not of one mind and we can't make up our mind what we want, so you go merrily ahead and do what you think is best anyway. You treat us as if we were your automobile distributors and dealers—but we have been merchants in our own right for a good many years.

If you continue to merchandise and treat the electric ranges in the same manner you did refrigerators, then seven or eight years from now you are going to land ranges, not in the same position refrigerators are now, but in a much worse position, because you are headed now toward the elimination of markup, and in all credit to you, you did try to increase the markup to the retailer on refrigeration. But it came almost too late. Don't delay so long on ranges.

Now that we are approaching an important phase in electric range merchandising, we sincerely hope it won't be necessary for us retailers to build up several more manufacturers on private brands to compete with the nationally known lines. Or that your casualty list won't be so heavy as in refrigeration—*House Furnishings Review* says that out of 273 manufacturers of electric refrigerators, 237 have "Gone With The Wind."

To repeat, in spite of all the weaknesses inherent in our type of distribution, we are here to stay. We may revise our methods slightly in the future, but we are a permanent link. As manufacturers you must have frequently reviewed your many alternatives in exploiting a metropolitan market. These of course you must have reviewed: jobbers, your own retail outlets, subsidized smaller retailers, door to door cold canvassing, and many more. The objections of course are obvious. Jobbers do not effectively exploit major appliances. Factory owned outlets are a problem both of expense and government regulation. Subsidized smaller retailers and cold canvassing is expensive, outmoded and inadequate. Many of you have set up your own distributors, hold them responsible for volume and under pressure for complete coverage they have enlisted a most heterogeneous group of dealers. They must be financed, serviced and trained. Sure it's expensive. But is it fair to give them the same terms as reputable dealers, who pay their bills promptly and who are willing to accept their full responsibility for the retail job? Is it fair to expect us to do an aggressive job for you when after years of shopping your present dealers, we invariably find them at our throats or with a knife in our backs? The rule of self preservation applies in the sale of electric ranges as in all other business.

Maybe we are not important in your distribution—but we think we are. Our percentage of total sales on all items we sell is much larger than our reputed percentage of total electric appliances. Maybe we dominate the metropolitan markets more than you think.

We think we are the best outlet for items having an accepted demand. We may not be so good in pioneering. And we may not be as spectacular and as dramatic as specialty stores on untried items or unknown things. But we do stay in business many years—and we think our policy is sound. Although we may be ultra-conservative to you and may seem inefficient in distribution, we, nevertheless, do have a large number of people who believe in us and use us as a source of retail distribution. But those of our competitors who have indorsed the more extravagant methods have long since added their bit to the higher cost of distribution because of bankruptcy.

Electric ranges are very slowly replacing to an unknown extent in cities an item which has been considered legitimate department store merchandise.

However, electric ranges particularly in the rural communities do not interfere at all with gas range sales but compete with the regular established retail sales of oil, wood, and coal burning ranges.

The market is wide open for a drastic increase in electric ranges without materially effecting the gas range business, nationally. Of course, in the cities, there will be some replacement.

We sell a goodly percentage of the national sales of gas ranges, and at a markup as revealed by the national figures of 40 to 45%. Most of us do not use more than 5% trade-in so that it is a very good profit item. For this, we do the usual retail functions.

We are seriously concerned when manufacturers start to replace this market of millions of dollars at 28 to 40% markup, averaging nearer 32% on total volume. And when you deduct a heavier trade-in, we are less interested in helping you. When you give very low down-payment and unusually long terms, we are determined not to help you. We are glad indeed that you cannot make headway—so we just stand by.

We have been told by many that the cost of distribution is too high and the present methods are not economical. A lot of people have tried to improve the situation and more have tried to destroy it. We admit that we are not perfect and we want to improve and lower our cost of distribution, but so far no one has been able to better the situation. There are no experiments of a lasting nature that have cut down the cost of distribution below ours.

Therefore, until we do find a better method, then let's recognize that distribution is rather important to manufacturing. The manufacturer is in business jointly with the retailer. It is a two-edged tool whereby one is dependent on the other for success. We recently had a convincing illustration of this fact. We had occasion to take a nationally advertised item off sale for three months. In spite of the fact that we had been running $350 a week for several months, the sales dropped to practically nothing and in the whole three months we sold less than $250 worth of the item.

On the other hand, when we put it back on sale and featured it, in the second week it jumped back to $350. This, to us, seems to prove that the combination of national advertising and retail indorsement and pushing is the most profitable for both manufacturer and department store.

Our show rooms make many sales—not only those that are recorded on our books, but we believe as many again, or perhaps many times that amount. Many of our customers deliberately pay us more for your merchandise than they would have to pay the specialty dealer, because they have confidence in us and our guarantee. We are a show room and a sales room and if we do not show your national product on our floor and try to sell it, then we suffer for the first year. But after the first year, we either forget the matter or substitute something else for it. But at that time the manufacturer begins to feel it. The customer notices that lack of indorsement. They are unable to see the item featured in their regular merchandise marts. They soon quit accepting it as a desirable item of trade. Then, after the second or third year, when we fail to present a product on our floors, then the public acceptance will be less and therefore your selling expense will climb to the sky.

Department stores have been misunderstood in their effort to meet chain and other competition on the low-end. It isn't necessary to sell a lot of low-end merchandise but it is necessary for us to have the low-end merchandise in order to trade the customer up. This we have done in hundreds of items. Time and again we have done poor business in a group of merchandise until we added the low-end competitive numbers. Immediately, our business has grown amazingly. I could give you dozens of illustrations, among which are important items such as bicycles, gas stoves, paint, typewriters, electric refrigerators, etc. In these cases, we sell usually less than 5% of the low-end competitive number and never over 15%. But we get a much heavier business in the middle and even heavier on the top because we have this competitive number. We featured gas ranges, for instance, time and again, and, in fact, we spent approximately one-third of our advertising effort in the low-end. But we got less than 5% of our volume at these prices.

This problem of competition is not a new one to us—and we are not afraid of it. It dates back many years. It is necessary for us to have the low-end in order to sell the high. You manufacturers of refrigerators are making an error now even in your present undignified price struggle. You have jumped to the low-end without filling in a gap for trading up and the result is going to be that the private brands are still

going to take a nice slice out of your business and you are possibly going to be a little disgruntled when the first season is all over.

It is necessary in adjusting prices to have a logical step-up and to have intrinsic merit in each higher item to justify the difference in price over the next lower number.

This is complicated price lining and if we department stores don't know anything else, then please give us credit for knowing that. It is our business. When you manufacturers have attempted to run our business, you haven't consulted us enough with details of this kind with which we know we are familiar.

As a matter of fact, the advertising agencies and the various experts whom you consult think they are close to the buying public. This is really absurd because I myself am so far removed from public opinion that it isn't even funny. We have one department doing well over two million dollars which I am supposed to merchandise, along with several others. I have an assistant under me who is closer to the picture. Under him is a buyer and under the buyer are five assistants, four of whom take a division. Under these assistants are some 16 heads of stock. Working under these heads of stock are over 200 salespeople. Each salesperson contacts approximately 75 customers per day. Is it necessary for me to calculate back and determine how far removed I am from these various people and how many thousands of them come in and sit down with me each day and have a long discussion about their needs and wants? If I am so far removed from the public and its demands, then how in the world can one have much respect for the accuracy of many surveys? One large company represented here does a good job in customer research. But most of them mean little to us. You bring out too many items without enough research. We do attempt to summarize and analyze customer demands. We have many records, not only of the movement of the actual stock, but of the things wanted which we don't have and of the things that we order which we don't want to carry in stock regularly.

Retailing, ladies and gentlemen, is a complicated business, as we certainly know manufacturing and utility operation to be. It is an easy matter to sit on the sidelines and make a lot of criticisms. In fact, manufacturers, power companies, and retailers have been subject to a lot of criticism recently and perhaps you feel that some of it is unfair. We do also. And we also feel that some of your attitudes have been unfair to us. All we ask is an opportunity to work out with you a mutual program that takes into consideration our various complicated problems and does not arbitrarily tell us what to do at every turn.

We simply cannot dramatize salesmanship as you people do. We cannot put on the large elaborate shows or we cannot be so flamboyant in our presentation. We have to play the role we are expected to play. It gets results but in a different manner from that to which you people are accustomed.

So, gentlemen, here is what we want —not that we expect to get it soon, any more than we got what we wanted in refrigeration until after seven long years, but, nevertheless, here is what we want in ranges.

In closing may I again remind you that I hope nothing has been said which will cause either resentment or antagonism. And may I assure you that, anything herein to the contrary notwithstanding, I want to be helpful and friendly.

For years you have been researching, questioning, investigating and wondering how to get more business. Today, after much expense and much effort our market is still only 10.3% saturated. So why not give us what we want and let's do the job together. Give us an opportunity to supply the metropolitan markets. We'll do a good job for you and we'll all be happy—the Utility, the Manufacturer, and the Retailer.

WHAT DEPARTMENT STORES WANT

From the Utility

1. Satisfactory rate on wiring and installation.
2. Help our Home Advisory Bureaus to educate customers to use range.
3. Continued and more aggressive aid in making range sales. Assist us in selling. Do not hamper or compete with us.
4. If you *must* sell ranges, then keep out of the cheap, poorly built, low profit merchandise and confine your advertising, sales, and effort to high price, high quality merchandise. Leave the sales, etc., to the Department Store.
5. Become our partner and help us get the proper help and treatment from the manufacturers.

From the Manufacturer

1. A line-up of ranges to meet our competition and logical steps in value and price up to the better models.
2. Our normal profit on the full line plus some advertising allowance.
3. Your dealer organization to give us some reputable competition, not to cut our throats.
4. A full control over all normal functions as retailers.
5. Avoid discount houses, no premiums, no free goods or bonuses.
6. Simplify (as some are doing) the range line down to three models, to retail at $75 plus installation, $99 and $125 built up with accessories to $150. Have one additional special, very low prices, and good profit.

Selling the Farmer

(*Continued from page* 161)

still so many places yet where similar practices can be adopted.

There is nothing distinctively non rural about these sales methods. Yet their adoption is far more general in larger cities than in smaller towns where rural trade is a factor. We recently conducted a survey to review the relationship existing between utilities and our stores in various cities. The answers to these various questions were tabulated according to size of cities. Let me quote just a few examples:

"Does the local utility company sell competitive merchandise?"

For large cities—76% yes—medium size 85% yes—small size 93% yes.

"Do they provide us with display space to exhibit our merchandise?"

Large cities—34% yes—medium cities—25% yes—small cities—8% yes.

"Do they provide a dealer coordinator?"

Large cities—50% yes—medium cities—30% yes—small cities—13% yes.

"Do you receive a bonus or allowance for selling ranges which supplant other types of fuel?"

Large cities—20% yes—medium cities—15% yes—small cities—3% yes.

These are a few questions taken from a long list, but I think you get the point. Small towns where Retail Stores must depend on rural trade, as well as on town trade, have not received anywhere near the attention which the larger cities have received in building up sound practical plans for intelligent cooperation between utility and retailer.

So, again when we think of selling the farmer, we must think of the wider use of simple, practical measures in which utility and distributor can work together with a common aim in mind. Certainly we do not know of any short cuts in meeting this problem whether it be the city or farm. The way seems perfectly clear. There needs to be just more effort along proven lines.

Some Power Problems for Solution

By C. H. Purdy
Consumers Power Co., Jackson, Mich.

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

WE have just completed a year in which the utility companies enjoyed the greatest volume of business in the history of the industry, and before I discuss some of the problems we in the industrial sales end face, I should like to review briefly some facts which should be given serious thought by all of us.

Our gross revenues in 1939 were about $2,304,000,000, as compared with $1,938,000,000 in 1929, 10 years earlier —an increase of about 19 per cent. During this period we have suffered one of the greatest depressions in history and also during this time many events have occurred to complicate the successful operation of our companies. Lowered rates, increased taxes, higher labor costs, and advances in the cost of everything going into the production and distribution of electricity have taken their cut to such an extent that the net income for the year 1939 was 22.3 per cent of gross compared to 28.7 per cent in 1929. In other words, during this decade net earnings of the electric utilities available for return on investment decreased $37,000,000, thus representing no return whatever on some 3½ billions of capital investment made on private utility properties during the 10-year period.

During this same period the average industrial power revenue decreased from 1.39c. per kwhr to 1.12c. per kwhr, a decline of about 17 per cent. When it is considered that the Federal Reserve Index of Industrial Production was 119 in 1929 and 105 in 1939, it is evident that there was an even greater decline in industrial rates. Due to these lowered rates, the revenue received from these customers showed a much smaller rate of gain than did sales of electricity, and while the kwhr sales increased 28.7 per cent there was an increase in industrial revenue of only 7 per cent.

Right now we are facing very uncertain industrial conditions. As a result of the outbreak of war in Europe, there has already been considerable industrial

MR. PURDY

expansion to handle war orders. Undoubtedly many of the companies represented here are receiving requests from time to time for large blocks of power, which investigation may show to be of only a temporary nature depending entirely on future conditions which cannot be foreseen. It is impossible to obtain long-term contracts, operating costs are increasing, and we face the possibility of tremendous investments. What's to be done? How to evaluate these loads and still show a resulting profit over a period of years is certainly one of the problems which management must consider seriously.

For many years a considerable proportion of our new power load came from the replacement of isolated power plants with purchased power service, and we did a good job of it. Although we have no definite figures as to the percentage of industry that purchased power serves, the U. S. Census of Manufacturers in 1929 showed that 53 per cent of all electric motors in the country were served by purchased power. Today it is estimated that the figure is well over 70 per cent; however, even though an excellent job has been accomplished, it is an ever-continuing job to keep industry using purchased power, as our competitors, the manufacturers of isolated plant equipment, are actively promoting their products.

Manufacturers have been pushed by the utility industry for more efficient and economical steam and power producing equipment resulting in the high pressures and high temperatures used in our power plants at present. It is only natural that industry should consider these same developments as possible tools to lower their production costs.

Up until six months ago a number of the larger industries, those having demands in excess of 1000 kw, were actively considering steam plant installations. While the unsettled conditions caused by the war have given us many problems, they have been of material assistance in meeting this type of competition. Inasmuch as the cost of power on the average represents only 1.4 per cent of the value of the product, large industries are now thinking twice before tying up large amounts of money for power plant equipment, realizing that process expansion or modernization may soon be necessary. The disastrous experience of many after the last war when unamortized equipment was left to rust is now being recalled, with the result that much more attention is now being given to equipment policies, and consequently the periods allowed for the amortization of new equipment are materially shorter than a few months ago. The following extract from the annual report of a firearms manufacturing company, although dealing with military products, is a good illustration of the industrial psychology at this time.

"For several years efforts to sell military products in foreign countries have been discontinued. The company has no existing surplus capacity for the manufacture of such products in any important volume, and the management deems it unwise to risk the company's capital in

any large expansion of military facilities for such business which can be only temporary. Any modification of this policy is dependent upon world conditions and the requirements of *this* country."

Not only steam, but also Diesel and gas engines, in some localities, are being pushed hard for every kind of power application from the small corner lot automotive service station to restaurants, hotels, office buildings, apartment houses, and general manufacturing. These units are available in sizes as small as 3 kw; 7.5 and 10 kw units are quite common. High pressure merchandising principles are being applied to the sale of complete package unit Diesel plants.

A survey has been made for the past several years by the magazine *Diesel Power* of the sales of Diesel engines by all manufacturers in the United States. This includes engines of all kinds, for all types of use, both portable and stationary. The U. S. Census of Manufacturers also has reported the horsepower that went into stationary use only. These figures are shown in the following tabulation:

Year	*Diesel Power* Sales Reported	*United States Census* Stationary *Full Diesels*
1933	252,000 hp	66,505 hp
1935	1,201,123 hp	509,489 hp
1937	2,075,379 hp	592,505 hp
1938	1,591,000 hp	*400,000 hp
1939	2,144,000 hp	*600,000 hp

* Estimated.

It is interesting to note from the *Diesel Power* survey that of 33 principal manufacturers of Diesel engines in this country one manufacturer sold about 750,000 hp in 1939, while the nearest competitor sold 170,000 hp. Eleven sold more than 50,000 hp each.

Table I—Sales of Stationary Diesel Engines—is from the U. S. Census of Manufacturers and shows the number and size of stationary engines sold during the three years noted. Thirty-five per cent of these engines were 50-100 hp, while 80 per cent were 20-200 hp.

TABLE I—SALES OF STATIONARY DIESEL ENGINES BY HORSEPOWER RATING

	1933	*1935*	*1937*
Number Engines	567	2,478	5,942
Rated Horsepower Capacity	66,505	509,489	592,505
Number—Less than 5 hp	.....	.....	60
Number—5 to 10 hp..	11	68	202
" —10 to 20 hp.	4	139	296
" —20 to 50 hp.	82	387	885
" —50 to 100 hp	256	1,131	2,271
" —100 to 200 hp	140	550	1,765
" —200 to 400 hp	56	130	316
" —400 to 1000 hp	15	61	112
" —1000 to 5000 hp	3	12	35

U. S. Census of Manufacturers

There have been several lists of Diesel engine sales compiled in the past few years, and from one list of 337 plants contracting for engines in 1938 and another list of 223 plants in 1939 an analysis has been made as shown in Table II —Sales Distribution by Manufacturers. This chart refers to commercial and industrial Diesel engines only, and attempts to show for the 560 plants analyzed the percentages of plants and horsepower sold by several different manufacturers for these two years, as well as their relative sales position. While these figures are interesting, no conclusions should be drawn from this analysis inasmuch as the horsepower shown is only a small percentage of the total stationary engine sales.

In an attempt to show how the Diesel sales are distributed geographically, the same data as was used in Table II has been broken down by regions. This is shown in Table III—Sales Distribution by Regions. It apparently indicates that Diesel competition is greatest in the Middle Atlantic and East North Central states, although all parts of this country are experiencing some activity.

In Table IV is shown the average rates for large and small power in the several geographic divisions, together with the percentage of total power customers and the 1938-39 Diesel sales data shown in previous tables. Many of us, I believe, are inclined to place too much emphasis on rates. It is evident from this data that rates play a very small part in the sale of Diesel engines when considered from a national viewpoint.

As near as we can calculate, the sales of stationary Diesels for commercial and industrial purposes amounts to about 10-15 per cent of the total Diesel sales in horsepower. Let us assume that on the basis of the 1939 total sales of 2,000,000 hp, that 15 per cent, or 300,000 hp, was competitive with purchased power. Then at an average of $25 per hp this represents a loss to the utilities of $7,500,000, or about 6/10 of one per cent of the total industrial and commercial revenue ob-

TABLE II—SALES DISTRIBUTION BY MANUFACTURERS—COMMERCIAL AND INDUSTRIAL DIESEL ENGINES—1938-1939
Based on Record of 223 Plants

	'38-'39 Plants	*'38-'39 %*	*'37-'38 %*	*'38-'39 Horse-power*	*'38-'39 %*	*'37-'38 %*
General Motors	42	18.8	0.6	7,290	18.1	7.6
Buckeye	30	13.5	15.1	4,584	11.4	18.6
Fairbanks Morse	25	11.2	11.6	3,330	8.3	7.5
Venn Severin	24	10.8	11.6	2,840	7.0	7.1
Caterpillar	15	6.7	4.4	1,843	4.6	2.5
National Supply Co.	14	6.3	24.9	4,621	11.4	23.1
Waukesha	14	6.3	3.5	2,401	5.9	3.0
Lister	13	5.8	2.7	497	1.2	0.2
Power Mfg. Co.	6	2.7	6.2	680	1.7	2.9
Blackstone	5	2.2	...	283	0.7	...
Reid	5	2.2	...	636	1.6	...
Buda	4	1.8	1.8	125	0.3	2.1
(15) Other Mfs.	26	11.7	3.9	11,243	27.8	6.0
Total 1938-'39	223	100.0		40,373	100.0	
Total 1937-'38	337			66,975		

TABLE III—SALES DISTRIBUTION BY REGIONS—COMMERCIAL AND INDUSTRIAL DIESEL ENGINES—*1938-1939*
Based on Record of 222 Plants

	'38-'39 Plants	*'38-'39 %*	*'37-'38 %*	*'38-'39 Horse-power*	*'38-'39 %*	*'37-'38 %*
New England	23	10.4	4.7	2,057	5.1	1.5
Middle Atlantic	43	19.4	22.6	5,614	13.9	22.2
East North Central	49	22.1	19.9	7,304	18.1	18.6
West North Central	12	5.4	5.1	2,496	6.2	6.3
South Atlantic	23	10.4	8.6	6,939	17.2	11.6
East South Central	11	4.9	5.6	2,048	5.1	3.9
West South Central	32	14.4	16.3	6,319	15.6	22.3
Mountain	12	5.4	5.9	6,090	15.1	6.2
Pacific	17	7.6	11.3	1,506	3.7	7.4
Total 1938-'39	222	100.0		40,373	100.0	
Total 1937-'38	337			66,975		

TABLE IV—SALES DISTRIBUTION COMMERCIAL AND INDUSTRIAL DIESEL ENGINES COMPARED WITH REGIONAL AVERAGE POWER RATES

	% Power Customers	*% 1938-'39 Diesel Sales*	*Small Power Rate per Kwhr*	*Large Power Rate per Kwhr*
New England	8.2	10.4	3.95	1.40
Middle Atlantic	27.5	19.4	3.73	1.17
East North Central	21.4	22.1	3.24	1.24
West North Central	10.4	5.4	3.29	1.12
South Atlantic	8.7	10.4	3.27	1.02
East South Central	4.1	4.9	3.06	0.83
West South Central	7.1	14.4	3.26	1.14
Mountain	2.8	5.4	3.44	0.86
Pacific	9.8	7.6	2.01	0.90

tained for 1939. This indicates that we have a problem which will be with us for some time. Of course I know that some of your companies do not have this competition—neither did a great many of us ten years ago.

Industrial electric heating has been considered one of our most promising fields and still is. While there are no exact figures as to the total electric heating load served by all utilities, it is estimated that over five million kilowatts of such equipment have been sold by the manufacturers. Some of these loads were in the nature of large heat treating furnaces with high power factors and long hours use per day. Fine business and just the kind we would like to keep on selling day after day; but, what has happened? The manufacturers of competitive fuel-fired equipment have also been busy improving their equipment, both in efficiency and methods of applying heat, so that the quality of work turned out cannot be compared to the work turned out in fuel-fired furnaces of ten years ago. Then, too, cheap natural gas is now available in a great many more industrial centers than a decade ago. So, as a result, we are not obtaining so many of these new large electric furnace loads, and in fact we occasionally see some of our present furnace loads replaced by cheaper fuel-fired jobs.

To overcome some of these losses which we have already sustained, I believe we must set about the selling of a large number of smaller loads which will mean more contacts, increased manpower, and better selling, with a resulting higher income per kwhr.

In the electric heating field there are many promising loads which should help increase our sales and profits, and probably one of the most promising is the electric melting of steel and iron.

The production of steel has grown from 14,000,000 tons in 1908 to 48,583,000 tons in 1936. Only 2 per cent of this tonnage at the present time is being melted in the electric furnace. With the rapid development of special alloy steels and high strength grey iron, the opportunities for electric melting should broaden considerably so that a much greater percentage of the total will be melted electrically.

Electric melting plays a very important part in the rolling-mill production of brass, it being estimated that better than 80 per cent is melted electrically. The development of better fuel fired furnaces has taken away a large amount of brass casting business formerly melted electrically; however, improvements in electric furnaces and a lowering of rates should gradually bring some of this business back on our lines.

The various types of high frequency induction furnaces holds forth big promise in the melting of precious metals and even brass, steel, and some of the more common non-ferrous alloys. One of the big problems in this field is the development of better and less costly high frequency generating apparatus.

The use of electric furnaces for the hardening, annealing, tempering, and drawing of all forms of steel products has increased greatly in recent years, due to the improvements made in furnace design which allow for special protective atmospheres in order to prevent scale. In this line very good progress has been made in box type and continuous furnaces which provide directly for non-oxydizing atmospheres as well as in the fast growing development of the electrolytic salt bath furnace. These latter furnaces furnish a good tool for high speed tool treating, as well as many lower temperature jobs, and can be used for carburizing if the proper salts are used. This furnace can also be used in forging plants, if the dies are not too intricate, and indicates that there is an opportunity for research to really reach the ultimate possibilities.

In connection with the heat treating of steel we must also give considerable thought to the rapid development of localized hardening of larger pieces, such as cams on camshafts and tips on valve stems and rocker arms; in fact, any type of steel assembly which requires hardness in localized spots only. There are two general methods of obtaining these results. One is the straight resistance method whereby current is allowed to flow in only part of the piece. Very frequently an electric eye is so focused as to show the proper temperature and to automatically release the piece from the electrodes, dropping it into a quenching medium. Another method of localized hardening is the induction heating of the part by eddy currents induced in the local spot by means of especially designed coils properly spaced for the job at hand. This application has proved successful in numerous places and its use is growing rapidly.

Both the resistance type and the induction type of localized heating create a problem in that they call for the greatest ingenuity on the part of the utility salesman, the customer's engineer, and the manufacturer of the equipment to be used. I believe, however, on intelligent search for these types of problems will lead to many more dollars of utility revenue which usually is secured at a favorable rate and resists any known method of competition.

Another application of electric heat in industry is in the copper brazing field. This process is a tool to many manufacturers for the lightening and simplification of numerous small assemblies. Particular uses are in the office machine manufacturing field, but it is rapidly broadening out to the automotive and refrigeration industries. Some startling results have been obtained through the use of light weight stamped pieces assembled by copper brazing instead of the heavier machine castings and forgings formerly used. Here again is a use for special atmosphere furnaces and the sales problem is one of creative salesmanship.

Infra-red heating for drying of finishes and other heat applications is one of our most recent tools. The present status is very much in the experimental and developmental stage. Numerous applications have been made which have been very successful; also, misapplications have been made due to lack of sufficient knowledge or experience in the field to which it has been applied. I feel it offers a great opportunity for future load-building, and the recent announce-

ment of the 500 and 1000 watt lamps will assist greatly in expanding the market possibilities for this method of heating.

There are many more applications of electric power in heating processes which cannot be mentioned here; however, one broad and usually good revenue field which should not be overlooked is the use of small and medium unit heaters and equipment built up using these heaters. Here again the problem is a matter of the ingenuity of application.

Electric welding has also made great progress. The use of arc welding from a Motor Generator set supply is very favorable for growth because many new buildings are being fabricated by this method. Of course more and more shops pre-fabricating machinery and structural steel are also adopting the arc welding method. We all know the headaches brought on by our attempt to serve large resistance welders and also arc welders of the transformer and rectifier types. The latter two are usually relatively small units and the particular trouble is that they are quite often used on small capacity circuits and even rural lines. The large resistance type welder is definitely an industrial tool of great importance, and if we can serve it this fact is one deterrent to a private plant. We all know of various means employed by different utilities to serve large welder loads, such as separate circuits from large substations paid for by the customer, motor generator sets supplied by the customer to supply his own welder power, etc. Of course in some instances it is possible for certain cases to be handled with little or no investment on the usual service facilities. I believe we should cooperate to every reasonable extent to serve these loads. The recent announcement of series capacitors for these larger welders may assist utilities in serving these kinds of loads with less restriction than we have put on them in the past. We gain appreciable revenue only if they are in high production use, but even in the lower revenue cases we are aiding the customer to construct his product at lower cost and thus more securely tying up our hold on his total load. Service at reasonable expense to the utility is the big problem to be solved in this instance.

Air conditioning is a load which has a varying importance in the different geographic areas of our country. A brief survey of the present state of the industry will indicate the possible problems we face. In the first place, the room coolers and unit conditioners have been so well perfected, and the securing of data for proper application so simplified, that the distribution of these classes of equipment has become a merchandising proposition with distributors and dealers being set up at strategic points throughout the area of the air conditioning market. This, to me, means that our principal problem dealing with this class of the industry is to fully cooperate with these dealers and distributors and, insofar as possible, develop our work along the lines of creating active prospects for the dealers.

The other class of air conditioning installations are those large jobs which are specially designed, usually by engineers and architects. The field covered is larger homes, large commercial buildings, and now the air conditioning of so-called "windowless" factories. We can in our regular contacts with our customers look for and talk the advantages of air conditioning in these locations and thus hasten the growth of this market.

I think a little more emphasis should be placed on the so-called "windowless" factories, of which several notable ones have been built. One of the prime considerations in most of these plants has been to even off the working conditions of the employees in all seasons so that much more uniform production can be achieved. Many collateral advantages which in themselves justify air conditioning have been found. For example, single room, large area plants with a minimum of supporting columns can house heat treating, forging hammers, grinding machinery, storage and office space without partitions. Think what this means in flexibility of layout. I believe we have a big field of application in this direction and one advantage from our standpoint is that this load usually comes at a time when our system, transmission, and even

(*Continued on page* 183)

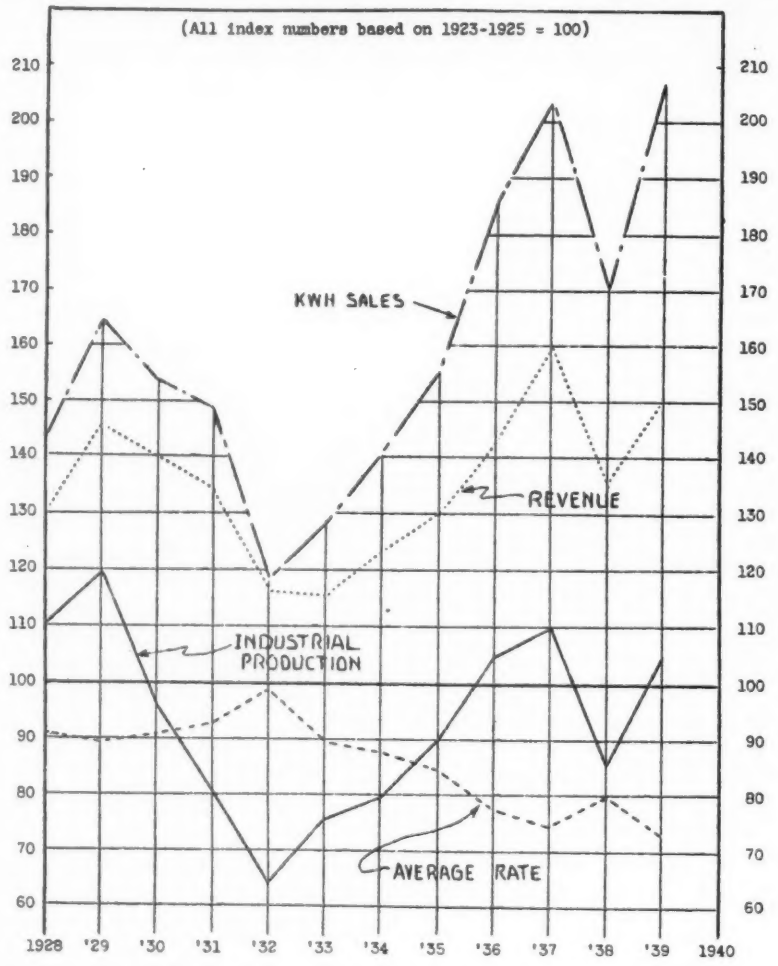


Fig. 1—Index of Sales, Revenue and Average Rate of Large Light and Power Compared with Federal Reserve Board Index of Industrial Production

Meeting Obstacles in Promotion of Electric Cooking and Water Heating

By Samuel Stites
Division Manager, Ohio Edison Company, Youngstown, Ohio

An address before the Seventh Annual Sales Conference, Edison Electric Institute, Chicago, March 19-22

I HAVE been requested to discuss particularly the matter of high wiring cost and what Ohio Edison Company has been able to do in Youngstown to relieve that burden. In discussing this subject I think it is best to give you an outline of the development of the electric range and water heating business in our territory.

Ohio Edison Company made no attempt to sell electric ranges prior to 1927. However, in the early twenties a small number of ranges had been bought in our territory—and I say "bought" advisedly. For a short period of time, the gas company was not extending its mains into the new territory on the outskirts of the city, and for this reason a few families purchased electric ranges through dealers, jobbers or manufacturers. No demonstrations or instructions in operation were given. We had no home economists, rates were high, and the average housewife had a very unsatisfactory impression of electric cooking. This was the background we had to face in 1927 when we first started selling electric ranges. Most of our customers, who had purchased electric ranges under these conditions, were dissatisfied and as gas became available they discontinued the use of electricity for cooking purposes.

The average electric range then cost approximately $250. It cost about $50 more for wiring, making a total investment in the neighborhood of $300 on the part of the customer. The rate was high—20 kwhr at 5.7 cents net, excess at 3.325 cents, and the service was furnished through a separate meter. I believe you will agree with me that these were tremendous sales obstacles to face and it is to the everlasting credit of the range salesmen of those days that they did manage to make a few sales in the face of such handicaps. Their prospects were persons who had been in the habit of buying a fuel range of some type at a price around $50, with an installation cost that did not exceed two or three dollars. In some cases the installation cost nothing.

MR. STITES

The cost of range wiring was a very serious factor. When local contractors were first asked to bid on range wiring installations, the figures submitted were approximately $90. Let me point out that at this time nobody knew much about range wiring and there were many arguments and discussions among the contractors and electrical inspectors as to the type of switches to use, what was permissible under the code, etc. Finally we secured a price of $45 from one contractor who today would be termed a "curbstoner." It was absolutely necessary that some start be made in the promotion of range sales because, aside from the city situation, there had been considerable development in the building of rural lines with their high investment and low use per customer. The construction of rural lines was given further impetus in 1929, when we established a policy of building lines on a guaranteed revenue basis.

Thus we found ourselves serving a large number of rural customers, each with a high minimum charge and low use of electricity. The sale of an electric range meant additional revenue for the company and additional satisfaction for the customer. Ranges, however, were still being installed on a separate meter and the rate was unchanged.

The contractor, who originally accepted our range wiring jobs at $45. soon found himself in trouble. The other organized contractors were critical, and the volume of range business was not sufficient to justify the investment in necessary tools and equipment. Even for the small contractor with light overhead there was hardly any profit. All of these things contributed to make the sale of electric ranges a difficult matter. However, it was gradually recognized, at least by the larger contractors, that the electric range was receiving some measure of public acceptance and, unless a serious effort was made to cut the cost of range wiring, this business would all go to the so called "curbstone" contractors. I might point out here that several of the larger contractors were good business men and that their high bids were in no sense attempts to gouge the company, but were figures which they considered necessary in making a legitimate profit. These contractors were, along with everyone else at that time, unfamiliar with the problems involved and, if it may be so expressed, afraid of them. The National Code was difficult to interpret and the installation of a second meter complicated the matter. The situation was not made any simpler by the fact that even our own Engineering Department was uncertain of the range load and argued that every time a range was installed it was necessary to rehabilitate the system clear back to the power house.

These various obstacles taken together seemed insurmountable and yet electric

ranges and water heaters were being sold, but certainly not in any volume.

In the meantime most of us in the industry felt that it was absolutely necessary to build up our load and build it rapidly. There had been a certain amount of tinkering with promotional rates. For a while we experimented with the "service charge plus" rate and introduced a clause stipulating that, where an electric range was installed, all of the current used over 50 kwhr would be billed at 3 cents per kwhr. At the time this was considered an extremely low rate.

In 1931, we began the practice of so-called "free" wiring; that is, we agreed at our expense to make the necessary changes in the customer's wiring installation to accommodate the electric range or water heater. We further promised the customer that we would assume the cost of wiring changes if he moved. It was only when this policy was finally adopted that any volume of range sales was developed.

Operating costs were still a factor until 1935, when we really put into effect a promotional rate for increased use of electricity. We were then for the first time on a competitive basis with other types of cooking equipment, excepting, of course, first cost.

This new promotional rate was what is known today as the "objective" or "inducement" type and provided a bottom step of 1½ cents per kwhr. Any customer installing an electric range invariably earned the objective rate and, inasmuch as there was a decided spread between it and our so-called "immediate" rate, a very powerful selling argument was thus devised. But the cost of installing the equipment was still high and a matter of serious concern to the company.

You will recall, from what I have just sketched, that back in 1927 we secured a price from a contractor of $45 for wiring which did not last. In 1930, three years later, the price was $54.75. By 1932, the price had come down to $50. In 1933, due to a reduction in labor costs and the extremely low prices of materials then prevalent, we managed to secure a price of $45. The work was split between two contractors in Youngstown.

The use of the range receptacle came in about this time and we bought receptacles in quantities and furnished them free to the contractors. In 1935, we adopted this same policy on the 60 amp switches. Then for a very short time we reverted to selling the receptacles and switches to the local jobbers and allowed them to make a small profit by reselling to the contractors. This policy had to be quickly abandoned, however, because the switches were sold for jobs other than range wiring. We then returned to the policy of furnishing the switches and receptacles direct to the contractor along with the order for the range wiring job.

By 1936, the cost of a range wiring job had been reduced to $36.75 and a plan of rotating the installation work among all members of the Contractors Association was worked out. Perhaps I should here define what the $36.75 included. It covered the work in an ordinary single house installation, where an existing two-wire service entrance was changed to three No. 6 conductors in rigid conduit and No. 6 BX range circuit. The company furnished a 60 amp switch with range fuse block and a receptacle. (The plug and cord were considered a part of the range.) The contractor connected the existing circuits to the new switch. Adding our cost of switch and receptacle to the contract price made an over-all price of $42.50, so you see that between 1930 and 1936 the price dropped from $54.75 to $42.50, a saving of $12.25, or over 22 per cent. Volume had increased materially and the electric dealer was becoming a factor in the picture.

At this time we were making every possible effort to increase the volume of range sales by paying bonuses to the dealers and liberal commissions to our own salesmen, yet we felt that the price of wiring at $42.50 was still high. Then came 1937, with its short-lived boom. Material prices increased, labor prices went up, and journeymen wiremen's wages went to $1.50 per hour, where they still are. The manager of the Contractors Association advised that when the contract expired on June 1, 1937, it would be necessary to increase the price in the succeeding contract.

Now, here is a real picture of one of life's darkest moments. We went into huddle after huddle with the contractors. They showed us their figures; we showed them our problem. We inspected typical jobs, we priced materials, we did everything that we could think of—used every conceivable argument—and yet the answer still came out the same. We could obtain no reduction in price which would still allow the contractor to make a decent profit. We cited wiring prices in other territories. The contractors cited labor prices in those same territories, differences in wiring standards, lack of inspection, and so on. Detroit seemed to be the shining example of low cost. I do not at the moment recall what the price was, but I remember it was something under $25.

The manager of our Contractors Association went to Detroit and came back with the answer—short service runs, short range circuits and large volume to one contractor. In Detroit, most of the services came in from alleys near the kitchen, while in Youngstown our services came in from the streets, and when we compared notes on the sizes of the jobs, combined lengths of services and range circuits, the Youngstown rate of $42.50 was lower per foot than the Detroit rate.

I am calling this to your attention to indicate how thoroughly we explored this problem and also as a warning against making comparisons of unlike situations.

All of this discussion pointed to only one answer—VOLUME. The contractors themselves frankly admitted that, if all the range and water heating wiring were given to one contractor, he could effect economies in operation, buy special equipment, and quote a lower price and still make a profit.

This was a step that we were reluctant to take, for, if we gave all of the business to one contractor, the others would resent it and consequently the harmony existing between the contractors as a group and ourselves would be destroyed. Furthermore, any contractor favored with the business would very likely retain it indefinitely, because he would be equipped to handle the volume and be in a better position to bid for it in succeeding years. Then, of course, there always existed the possibility of another contractor taking a chance and underbidding, losing money and giving poor service.

All of these possibilities and others, too, were discussed fully and frankly between representatives of the company and the contractors. For many years our relations with the organized contractors had been very friendly, and it should be borne in mind that for some time the range wiring business had been distributed on an equal basis among the members of the Contractors Association.

To give you an idea of how close the relations were, I might cite an instance that happened several years ago. Our

Appliance Department had sold a range to a customer which was delivered on Christmas Eve. On the assumption that the range wiring was in, the customer was promised the use of his new range on Christmas Day. The wiring was in, but it was of the old type where the range previously in service was connected solid. The new range was delivered with a cord and plug, thus requiring a receptacle. Late Christmas Eve, a wireman working for one of the contractors was in a barber shop and happened to hear this customer complain of having a fine range in his kitchen which he had given his wife, promising her she could cook her Christmas dinner on it, but due to the blankety blank power company, she would be sorely disappointed. That wireman phoned his boss and his boss got in touch with us. The result was that on Christmas morning, the receptacle was installed and the range placed in service. Now that kind of cooperation is worth having and it is something that we did not want to lose.

The contractors fully realized the situation. They knew we could get lower prices from journeymen or "curbstoners" and at the same time they realized, and so did we, that we could not depend on the type of service we would get from such a contractor. Under their rotation system, none of them was getting enough business to justify an investment in special equipment which would have the effect of reducing costs.

It was finally proposed that the members of the local Contractors Association incorporate a company for the purpose of contracting with us for all range and water heater installations in the territory. It was felt that standardization of materials would permit quantity purchases and that specialized service methods would bring about savings in labor costs. A company was formed with twelve members of the Association as stockholders and a contract was entered into with us for a period of one year. Upon the formation of the company, the manager of the Contractors Association became manager of the new concern. Approximately $6,000 was invested in the new company to include the cost of making alterations in a rented building and to provide tools, trucks, etc.

The volume of installations at this particular time (August 1937) was running at the rate of about 1,200 a year and water heater installations were running between 400 and 500. Based on this volume and the economies which the new company hoped to effect, a new proposal was made to us. Prices on the standard single family house installation were submitted as follows:

1. Rigid conduit to switch, cable to range $33.32
2. Electric metallic tubing to switch, cable to range..... 31.85
3. Complete cable entrance and range circuit 28.91

It will be recalled that the price previously in effect of a rigid conduit entrance and cable to range was $36.75, so it is at once apparent that the new figures showed substantial reductions. A contract was finally signed on the basis of electric metallic tubing to the switch, and cable to the range, at a price of $31.85.

The specifications covering this particular job are as follows: Two No. 6 R.C. and one No. 6 bare conductors in one-inch electrical metallic tubing from service entrance fitting, not less than fifteen feet above the ground level, at street side of building adjacent to the company's nearest pole, through outside meter socket to 60 amp three-pole safety switch in distribution cabinet with 60 amp range circuit and four 15 amp branch circuits. Neutral and equipment are grounded to water pipe or driven ground with No. 4 bare copper conductor exposed, but protected as much as possible, on basement ceiling or wall. A No. 4 copper jumper is placed around the water meter. Old lighting and appliance circuits are connected to the new distribution center. The range circuit is run from the distribution cabinet to the location of the range plug receptacle with three No. 6 bare neutral or armored service entrance cable. The company furnishes a one-piece main switch in the distribution cabinet, the range plug receptacle and the meter socket.

Throughout this discussion I have confined price comparisons to the single house installations. In all of our contracts, prices are included to cover other types of installations, such as a range circuit only, range wiring installation in a two-family apartment, water heater installation, etc. At the time this new scheme of handling installations was adopted, proportionate reductions in prices were made all along the line.

Under the previous arrangement, we dealt with two contractors on water heater installations—an electrical contractor and a plumbing contractor. The price for the electrical part of the work was $21 flat. The plumbing job was handled more or less on a time and material basis and the costs ran usually from $15 to $25. The average was probably somewhere around $20. The flat price for the wiring and plumbing installation offered by the new company was $35.28.

This reduction in price was not the only advantage in the case of water heater installations. Under the previous arrangement, we had much difficulty and lost considerable time due to a lack of coordination between the wiring and plumbing contractors. The new set-up entirely eliminated this trouble. The new company entered into an agreeement with a plumbing contractor, whereby they had a journeyman plumber available at any time a water heater installation was to be made.

Before I leave the subject of price, I might say we have recently changed our specifications somewhat to make the complete cable job standard, on which basis the net price of the single family range wiring installation is now $28.91.

When you consider that in 1931 the contract price was $54.75, the reduction in cost is quite considerable. However, to be perfectly fair and have the comparison absolutely correct, approximately $4.50, covering switch and receptacle, should be added to the 1940 price, which was included in the contract price in 1930. Thus, the actual comparison is between $33.41 and 54.75, a reduction of about 40 per cent. Incidentally, I believe we are now getting a better installation. It should be remembered that each of these prices includes a $2 inspection fee paid by the contractor.

At the time this plan was adopted there was considerable doubt in the minds of some of the contractors as to whether the new company could recover all of its costs and show a profit at these prices. The figures compiled by the manager indicated that, with any decent volume of business, it could be done. As previously stated, at the time the contract was entered into, the volume of range installations was running about 1,200 a year. Unfortunately, due to "Depression No. 2," which started late in 1937 and continued through 1938 and the first half of 1939, this volume was not attained. However, the contractor's statement for the first twelve months of operation, in spite of reduced volume, showed a margin for overhead and profit of approximately 29 per cent. The contractor's cost (exclusive of overhead and profit) was approximately 30 per cent less than the cost to contractors

who were doing the work previous to September 1937. Further reduction in volume naturally reduces the margin.

The savings effected have been about equal in both materials and labor. The saving in material cost was due to quantity purchases, although material prices in general were lower during 1938 and the early part of 1939 than they were in 1937. The average labor per complete range installation has been reduced from eight to five and one-half journeyman hours.

Several factors are responsible for the reduction in labor cost:

First: Standardization of material and methods. The same type of wiring material is used on every job and the same installation method is followed in so far as building construction will permit.

Second: The same men are employed as far as possible. When the same mechanic works on the same kind of work day after day, handling the same materials and following the same installation methods, he becomes quite expert and finds short cuts and time savers which otherwise would not happen.

Third: A journeyman and an apprentice work together. After an apprentice has worked a few weeks on this class of work, he, under the supervision of a competent journeyman, will do the rough part of the job and the journeyman will spend his time on the work requiring skill and experience.

Fourth: Special transportation equipment has been provided. Each crew uses a half-ton truck equipped with a steel body, especially designed for the purpose. Trucks are of the covered body type equipped with ladder racks, conduit racks, vise supports, hooks for coils of wire and cable, and bins and compartments for storing separately each of the various kinds of fittings required. It is never necessary for the crew to return to the shop. The truck is a complete storeroom and traveling time is reduced to a minimum. Each truck is equipped with the best tools and equipment that are available and they are kept in good condition.

I would like to be able to say that we have solved the range wiring problem, that here is a plan which will fit always and anywhere. I have no such illusion. So far, it is the best solution we have found in our particular territory. In many communities, where there is no organized contractors' group, it would be absolutely impossible. In smaller territories, where there are two or three independent contractors, it may be impracticable for the utility to give the business to one of them, or there may not be enough business to justify one contractor making the investment necessary to specialize. You may have contractor-dealers who are doing a good job of range selling and who expect to do the wiring on their own sales. Each territory has its own problems and what happens to work out well in Youngstown may not be worth a whoop in Chicago or some other city.

As a rule, installation costs in small communities are not excessive due to the prevalence of journeymen contractors who are merely selling their labor. The Youngstown plan, however, may contain some ideas which would apply in fairly large communities. All I can say is that it is now working very well for us. We hope it will continue to work. It has weaknesses—we cannot tell when differences of opinion or clashes of interest may break up the Contractors Association. In these days of regulation, some bureau or board may find that such a plan does not fit in with its notion of the public interest. Again I repeat, it is the best solution we have found so far. If it continues, and range volume grows, we should be able to reduce costs still further.

The contractor has often expressed the idea that, if the utility could guarantee a sufficient volume of business over which overheads could be spread, any additional volume could be taken care of at considerably reduced prices—in other words, a sort of promotional or "service charge plus" form of rate.

It might be possible to devise a sliding scale price with a certain number of installations per month or per year at a top price which would slide down for additional installations. Maybe some such scheme has range sale promotional value. Maybe the saving in wiring costs on the additional sales could be split with the salesman or the dealer. I am not advocating it—merely throwing it out as a thought. Standardization and specialization may be worth thinking about in other wiring fields. They may have possibilities in the promotion of adequate wiring in new and old homes.

Overvoltages on Transmission Systems

(*Continued from page* 155)

matic three-phase cathode ray oscillograph was used to record the three phase-to-ground voltages from the beginning of the disturbance until it was cleared. The overvoltages of interest in this study were those caused by the impressed voltage of the system itself, as influenced by the system characteristics, and not lightning impulse surges or switching surges not associated with fault conditions.

The report summarizes over 200 records secured with the cathode ray oscillograph during the lightning season of two years. Prior to the installation of the cathode ray oscillograph an automatic magnetic oscillograph and surge recorders were connected to the system. The latter instruments were continued during the period that the cathode ray oscillograph was used. Thus, a comparison between the three methods of measuring overvoltage are available from this study. In general, the voltages as recorded on the cathode ray and the magnetic oscillograph are in substantial agreement, which increases the confidence in the results using only the magnetic oscillograph as recorded in Engineering Report No. 30.

The analyses of the cathode ray oscillograms indicate that maximum transient voltages usually occurred on the establishment of the fault and were therefore recorded only on the cathode ray oscillograph. However, the clearing transients which were recorded by the magnetic oscillograph were frequently almost as large as the initiating transient. Moreover, on this system a number of faults cleared and re-established one or more times before final clearance, and in these cases the magnetic oscillograph gave as good results as the cathode ray instrument.

Some of the observations with the cathode ray oscillograph were made with high sweep speed to draw out the initiating transient. These records indicated that the predominant transients were of quite low frequency, well within the limits of the magnetic oscillograph.

Included in the report are a few computations using a simplified circuit to represent the transmission system. The computations were in excellent agreement with the measurements as regards wave shape, and in reasonably good agreement as to the magnitude of overvoltage.

Electrical Industry in Hartford Unites in "Cavalcade of Electricity" Celebration

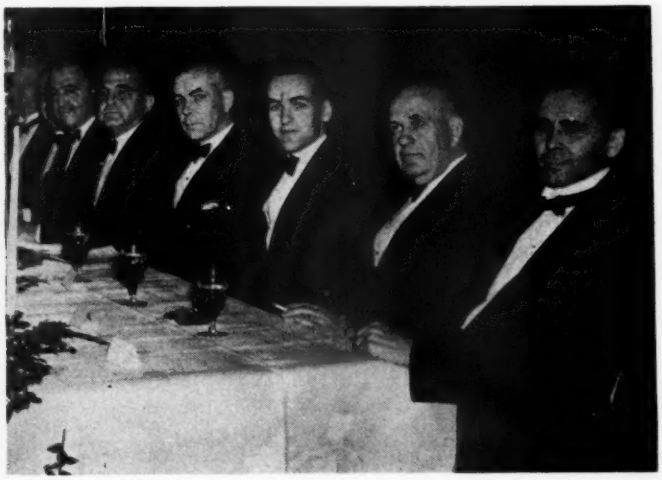
By Don Parry
The Hartford Electric Light Company

ALL UNITS of the electrical industry in Hartford, Connecticut, united in a city-wide celebration during the last three weeks in April, which capitalized on timely events to focus public attention upon the electrical industry and upon present opportunity for electrical living. Under the leadership of The Hartford Electric League and The Hartford Electric Light Company, a coordinated activity was planned and carried through, involving dramatic stage performances, special exhibits and displays, radio programs, dealer and utility company displays, and extensive newspaper advertising and publicity.

The entire activity was planned not only to do a broadly educational job, but, in addition, to effect an immediate increase in electric living by dramatizing its possibilities in 1940, in Hartford. The approach was historical, using as a starting point the life of Edison, and Edison's contribution to electrical living today, and the "Cavalcade of Electricity" was pictured as a continuous process, reaching its culmination in electrical opportunities today. Although ample attention was given to the early phases of the history of the industry, both locally and nationally, the "Cavalcade" theme was used to picture the electrical industry as one which has had a tremendous part in building civilization as we know it, not only through the pioneering effort of geniuses such as Edison, but by the continuous efforts of a vast number of people who have worked to improve the electrical art and to make it available to more and more people at progressively lowered costs.

Particular attention was given to those associated with the electrical industry itself in all its local branches, and a high point in the city-wide celebration was the "Electric Family Farty." Hartford's largest theater was filled with officials and employees of the utility company, dealers, distributors and electric manufacturers. Mr. Samuel Ferguson, President of The Hartford Electric Light Company, made a public presentation to Mr. Montgomery Waddell, a member of the Edison Pioneers, of a testimonial to Thomas Alva Edison and the pioneers who were associated with him in the early development of the electrical art. Preceding the party, Mr. Ferguson had been host at dinner to a number of distinguished visitors representing the industry nationally and leaders of various branches of the electrical industry in Hartford. At the conclusion of this dinner, the speakers' table was transferred to the stage of the theater, and the presentation of the testimonial took place in the full view of the thousands who had assembled there.

For the public at large, the center of interest in the first week of the "Cavalcade of Electricity" celebration was a series of stage performances at Bushnell Memorial Hall, Hartford's leading theater. Through the cooperation of the General Electric Company, a two-hour entertainment, with professional cast and staging, portrayed dramatically the sweep of electrical living from its earliest days to the present. This entertainment was presented without admission charge, tickets having been distributed



Left photograph.—President Samuel Ferguson (facing the camera) presents to Montgomery Waddell, Edison Pioneer, the testimonial honoring the work of Thomas A. Edison and his pioneer associates. In the foreground are city and state officials, and directly behind Mr. Waddell, Jeremiah Flynn, 51-year veteran employee of The Hartford Electric Light Company.

Right photograph—At the speakers' table, which was transferred from the Hartford Club to the stage of Hartford's largest theater for the public presentation, are seated (left to right): Mr. Waddell, Mr. Ferguson, Orrin Kilbourn, President of the Hartford Electric League; Willis R. Whitney, head of G.E. research; H. L. Andrews, Vice-President of G.E.; John Edison Sloane, grandson of Thomas A. Edison; W. Fred Hornsby, manager of Edison Industries in Hartford and close friend of Edison; and H. S. Bennion, Vice-President and Managing Director of E.E.I.

A TESTIMONIAL

presented by

SAMUEL FERGUSON, *President of The Hartford Electric Light Company*

to

MONTGOMERY WADDELL, EDISON PIONEER

as a tribute to Thomas Alva Edison, the pioneers who were associated with him in the founding of the electrical art, and all the men and women who, coming after Edison and his associates, have worked to free the homes of the world from drudgery and to bring light and power to its businesses and industries.

Presented at the

HORACE BUSHNELL MEMORIAL HALL
before a gathering of
the electrical industry of Hartford
April 10, 1940

WE ARE GATHERED here tonight to do honor to the father of our industry, and to the group of his associates known as the Edison Pioneers.

The entire history of mankind on this earth is a record of man's struggle to bend the elemental forces of nature to his will.

The prehistoric ancestor who discovered fire revolutionized life as it was then known. Then came the discovery of metals which could be shaped into man's tools. The lever and fulcrum and the wheel gave to man powers he had never known before. Man tamed animals to carry his burdens. He discovered that there was energy in falling water, and the water wheel was born. Man experimented with steam, and the steam engine became another great step in human achievement. Coal was discovered and then gas, as new forms of energy in man's ceaseless search for power to carry his burdens and ease his existence. Other men experimented with a new force which they called electricity, and which they said held some promise of serving men if it could be put to practical use.

Thus passed untold thousands of years from the time a tiny flame flickered in the cave of prehistoric man to that day in October, 1879, within the memory of living men and women, when, in a small laboratory in Menlo Park, New Jersey, a group was gathered around a glass ball, in which a carbonized thread was coiled. One of these men, Thomas Alva Edison, said "TURN IT ON." A light began to glow in the glass ball and kept glowing for forty hours. On that fateful day, only 61 years ago, the life of all mankind was revolutionized. On that day began modern civilization as we know it. On that day the electrical industry was born.

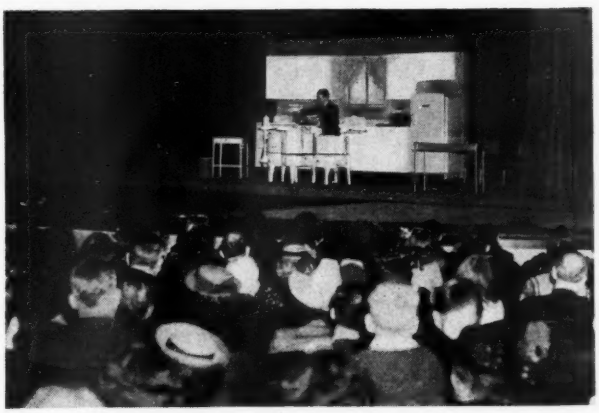
There followed in quick succession a new and stronger lamp, more powerful generators which transformed the power of heat into the power of electricity, and the electric motor which made the power of many horses available to every man at the turn of a switch.

Thus within the span of a single lifetime, 61 years, great power plants—each with more power than kings of old could command—are serving our country and the world. Within a lifetime, our country and the world have been girdled by transmission lines and in cities, towns and country, hundreds of thousands of miles of wire are bringing power to homes, businesses and industries. Within a lifetime, great factories have been built and inventive geniuses have developed devices and tools so that electricity today is serving man in hundreds of ways. Within a lifetime, a system of distribution has been set up so that today these many services are available to any home or business and at prices far below the most optimistic hopes of only a generation ago. Thus in these few short years, this power, in the search of which man has spent his entire history, has not only been found but has been transformed from an expensive luxury to a matter of a few cents a day in the average home. In the year of 1940, Thomas Edison's dream has come to pass as will be illustrated here later in the evening and in numerous exhibitions this month throughout our city.

At this time, when forces for destruction are rampant throughout the world, it seems fitting to pause and reflect on these great accomplishments for human good which have been made within the space of our own recollection and knowledge, and to consider well this heritage which has been given for our use. We in Hartford, one of the first cities in the world to enjoy the fruits of Edison's work, pay tribute to Thomas Alva Edison—to his vision, his genius, and his indomitable will. We pay tribute to that notable group of Edison Pioneers who had the courage to follow him into the unknown and we pay tribute to you, Montgomery Waddell, one of his most intimate and valued associates, whom we greet tonight as representing the survivors of those pioneers. We pay tribute to all the men and women who, following after these men, have devoted their lives and their savings to the development of this great servant of mankind; and we are proud to dedicate ourselves to their ideals which were, in the words of Edison, "to free the people from drudgery and to create the largest possible measure of happiness and prosperity."

through electric appliance dealers. The hall was filled for six consecutive performances, three matinees and three evenings, with a total attendance of more than 13,000 people—more than have ever seen any sort of show in Hartford before, according to officials of the Bushnell Memorial, in whose building the Cavalcade was presented. At the same time, the motion picture, "Young Tom Edison" had its Hartford premiere at a local motion picture theater, and by careful advance planning, publicity for this film was geared-in to the electric industry's celebration to take full advantage of the public interest aroused in that quarter. The management of the theater cooperated generously with the industry's activity and dramatic interest was thereby heightened for the entire celebration.

One of the outstanding immediate results from the concentrated effort of the "Cavalcade of Electricity" was seen in the way in which newspapers and other mediums regarded its news value. During the first two weeks of the activity, daily papers printed as news, stories totaling 519½ column-inches of fact, comment and pictures, including two front-page stories of considerable length, an editorial commenting upon the industry's contribution to modern life, and nearly a page of rotogravure pictures of Edison that had been assembled for them from the files of the Edison Electric Institute and elsewhere. The same Sunday paper that carried the rotogravure spread also used a full-page story in its Sunday magazine section on the history of The Hartford Electric Light Company, with special attention to the numerous developments in the electrical art which were first applied in Hartford. One radio station carried as news the ceremony for the presentation of the testimonial to Mr. Waddell, and another asked for the privilege of carrying interviews with the distinguished visitors, a request that could not be granted because of the time schedule. The Hartford Public Library made up a special display in a downtown show window of books on Edison and on the history of the electrical industry.



One of the lighter acts in the "Old Fashioned Variety Show" which formed a part of the stage showings in Hartford's "Cavalcade of Electricity."

At the time of going to press, when the celebration had not yet reached its conclusion, it was too early to evaluate accurately the effect in sales. All merchandising is done through regular retail outlets, none directly by the utility company, and reports from the field were therefore incomplete, but several of the larger stores already have reported record sales of electrical equipment for homes.

The Hartford Electric League, which acted as coordinating agent for the various factors in this all-industry celebration, announced these aims for the celebration:

Stimulate the public's imagination and create a receptive frame of mind toward better living—electrically.

Afford an opportunity for dealers, large and small, to tie-in with individual activities, which will capitalize on the effect of the general publicity.

Unite the entire industry in the city in a movement to stir up more business of all types.

As the celebration passed its half-way mark, it was generally agreed that these objectives were being accomplished. Through the combined efforts of the League, the utility company, distributors, manufacturers and dealers, a tremendous barrage of electrical advertising had been laid down, and the concentrated effort had already shown impressive results in increased business.

Typical display window of a cooperating appliance dealer.

One of the display windows at The Hartford Electric Light Company.

It's still A THRILL to be a Bride!
1890 Electric LIGHT
JANE: Wedding bells a week away! You must be thrilled to death!
JUDY: Scared to death is more like it! I'll never be able to keep house like you do. Out all afternoon, yet you serve this delicious dinner. What's the secret?
JANE: One that more than two and a half million women already know. Ever see anything so smart and lovely as my new electric range?
JUDY: So that's why you always look as peppy and pretty as though you never go near a kitchen!
JANE: It certainly is. Electricity for cooking is as safe—clean—modern as it is for light. It's flameless and fumeless ... so meals cook themselves with absolute safety while I'm out. A girl's a goose to buy anything but an electric range in this day and age!
JUDY: But that's what Jack and I figured we had to do. We thought electric cooking was expensive ... and slow.
JANE: Fiddlesticks! With the low rates for cooking—electricity is really cheap ... and it cooks as fast as food can be cooked. Listen, Judy ...
JANE: Be as modern as your Granny was, fifty years ago. Her big thrill was electric light. Make yours electric cooking!
JUDY: Sorry to eat and run, but you've given me something important to talk about with Jack.
JUDY: I picked the right time to go modern ... just as my dealer holds his ELECTRIC RANGE REVUE. I'm glad Jane knocked those old-fashioned ideas out of my head in time and showed me why IT'S STILL A THRILL TO BE A BRIDE!
FAST AS FIRE ... WITHOUT THE FLAME!
CLEAN AND CHEAP LIKE ELECTRIC LIGHT!
1940 Electric COOKING
SEE YOUR DEALER NOW... SEE HIS REVUE OF 1940
ELECTRIC RANGES
clean · fast · low-cost cooking
THE MODERN KITCHEN BUREAU, 420 Lexington Ave., New York, N.Y.

Reduction from a page advertisement in the Saturday Evening Post.

Forty Four States and D.C. Line Up in M.K.B. Spring Campaign

FORTY-FOUR states and the District of Columbia are today represented in The Modern Kitchen Bureau's 1940 Spring campaigns for ranges, water heaters and refrigerators.

Utility companies participating in Bureau campaigns this Spring show a 40 per cent increase in numbers from last year, and the number of MKB promotional pieces they are using is up 56 per cent.

The most striking increase appears in the records of the Bureau's Donald Duck campaign for electric water heaters. The Bureau has distributed five times as many promotional pieces this year as it distributed for the 1939 Spring campaign for water heaters.

Keystone of the Spring campaign is its program of national advertising, which extends throughout the year and makes use of *McCall's Magazine, Better Homes and Gardens* and *Saturday Evening Post*. The advertising program reaches its greatest intensity on May 4, with publication of a two-color full-page advertisement in the *Post*. The series commenced with a half page in *Better Homes and Gardens* in March. The complete schedule is as follows:

Better Homes and Gardens—March
McCall's Magazine—April
Better Homes and Gardens—May
Saturday Evening Post—May 4
Saturday Evening Post—May 18
McCall's Magazine—June
Saturday Evening Post—June 8
Better Homes and Gardens—July
McCall's Magazine—August
Better Homes and Gardens—September
McCall's Magazine—October
Better Homes and Gardens—November
McCall's Magazine—December

The electric water heater program, also, is built around national magazine advertising, with insertions every other month in *Better Homes and Gardens*. Featured in the advertising are the advantages of electric water heating and a free offer of the Donald Duck Jingle Book.

The Bureau's 1940 electric refrigerator program appears to have been presented at a particularly appropriate time in view of the general acceleration of the refrigerator business. Its slogan—Twice the Value at Half the Cost—is based in part on a comparison of purchase prices of today with prices in the early '30's, and in part on the fact that this year's models operate at an average rate of 300 kw per year as compared to 600 kw for models of the earlier period. These facts naturally have a special appeal for the replacement market. Many utilities are organizing their sales programs with this in mind, and are using the Bureau's refrigerator material as the most effective means of reaching this class of prospects.

June E.E.I. Convention Will Have Wide Scope

THE program now taking final shape for the Eighth Annual Convention of the Edison Electric Institute, to be held at Atlantic City June 3-6, inclusive, promises to rank high in comprehensiveness and in interest. At one or the other of the five general sessions, the special evening session and the luncheon meeting, practically every activity of major importance to the electric industry will have its turn beneath the spotlight, as well as more general subjects of vital interest to every American business man—in this year of 1940. The speaker, in each case, will be an authority in his particular field.

Among those who will speak on subjects of broad general interest are Mr. Howard Coonley, chairman of the board, National Manufacturers Association; Dr. Lionel Edie, consulting economist, and Colonel Robert S. Henry, assistant to the president, Association of American Railroads.

Included in the speakers representing the electrical industry are: Mr. Alex Dow, The Detroit Edison Company; Mr. Samuel Ferguson, The Hartford Electric Light Company; Mr. Paul M. Downing, Pacific Gas and Electric Company, San Francisco, Cal.; Mr. C. L. Campbell, Connecticut Light and Power Company; Mr. Edwin Vennard, Middle West Service Company, Chicago; Mr. H. R. Woodrow, Consolidated Edison Company of New York, Inc.; Mr. E. L. Hopping, Philadelphia Electric Company; Mr. George Ousler, Duquesne Light Company, Pittsburgh, Pa.; Mr. H. L. Wallau, The Cleveland Electric Illuminating Company.

Mr. Kinsey M. Robinson, The Washington Water Power Company, Spokane, Wash.; Mr. James M. Stafford, Jr., Georgia Power Company, Atlanta; Mr. W. F. Nimmo, Virginia Electric and Power Company, Richmond, Va.; Mr. C. E. Kohlhepp, Wisconsin Public Service Corporation, Milwaukee; Mr. Bernard S. Rodey, Jr., Consolidated Edison Co. of New York, Inc.; Mr. F. A. Newton, The Commonwealth and Southern Corporation; Mr. H. P. Liversidge, Philadelphia Electric Co.; and Mr. C. W. Kellogg, president of the Institute.

The electrical manufacturers will be represented by Mr. Ralph Kelly, vice-president, Westinghouse Electric and Manufacturing Company, and Mr. C. E. Wilson, president, General Electric Company.

For most delegates, the only formal activity on the opening day, Monday, June 3, will be registration at Convention headquarters in the Atlantic City Auditorium. All business sessions of the Convention are to be held in the Auditorium, which many of our delegates remember as the scene of previous conventions. Except for committee meetings, the balance of Monday will be left open for informal gatherings and "getting settled" in general.

Five general sessions, an evening and a luncheon meeting are scheduled for Convention week. The first will open promptly at 9:30 a. m., Tuesday, June 4, with another session in the afternoon of the same day. Two general sessions—morning and afternoon will be held Wednesday, June 5, with a special session the evening of the same date. The concluding events will be a morning session, and a luncheon meeting at the Hotel Traymore, Thursday, June 6.

With the Convention ending after the luncheon meeting on Thursday, many delegates undoubtedly will take advantage of the ensuing long week-end to enjoy the recreation facilities for which Atlantic City is justly famous. Entertainment for the brief leisure periods during the Convention itself has not been overlooked, however, in assembling the program. There will be dancing in the Fountain Room and Terrace of the Hotel Traymore on both Monday and Tuesday evenings, and a tea for the ladies on Tuesday afternoon. A musical treat is in store for those who attend the Wednesday evening session when a forty-five minute interlude in the speaking program will be given over to three nationally known artists; Miss Margaret Speaks, vocalist well known to radio listeners, Benar Heifetz, solo cellist of the Philadelphia Orchestra, and Karl Bonawitz, one of the world's leading organists.

Transportation circulars will shortly be sent to member companies. To members from the West expecting to visit the New York World's Fair in conjunction with the trip to Atlantic City, it is suggested that advantage be taken of the low fares which the railroads have placed in effect for tickets to New York City. Many optional privileges allowed by the railroads in honoring tickets via diverse routes can also be secured. Information concerning these can be obtained from local ticket agents.

A schedule of special rates allowed delegates at Atlantic City hotels will be found on the next page.

Friday, June 7, has been designated as Edison Electric Institute Day at the Fair, and Convention visitors will be especially welcomed at the many fine exhibits in the electrical section of the grounds. In order that delegates may travel direct from the Convention after its close to the Fair, a special train will be operated from Atlantic City to New York Thursday, leaving Atlantic City at 2:55 p. m. and arriving New York at 5:40 p. m., Standard Time.

A cordial invitation is extended by Mr. C. W. Kellogg, president of the Institute, to all electric utility companies including non-members of the Institute and to electrical manufacturers.

Active Geographic Interest in New Distribution Transformer Standards

GEOGRAPHIC interest in the new EEI-NEMA Standards for Distribution Transformers is increasingly active. Several recent requests for sectional presentations of the Standards with transformer exhibit emphasizing the mechanical features have been received and are being arranged for by the EEI-NEMA Joint Committee on Standards for Distribution Transformers. Up to April 1, this presentation with exhibit has been made in eight distinct areas as reported in the news item in the March BULLETIN. Since then, it has been repeated before the Northwest Electric Light & Power Association at a meeting in Spokane, Washington, on April 10, 11 and 12, and before the Rocky Mountain Electrical League at a meeting in Denver, Colorado, on April 15 and 16.

In each case the presentation is made, explanations given and questions at the exhibit answered by EEI and NEMA representatives who, through active participation in the Joint Committee work, are thoroughly familiar with the development.

The earnest interest exhibited in the new standards at each of these geographic meetings presages extensive adoption of the features, and points to early economies from a general acceptance when the new standards become commercially available next July.

Meanwhile, the Joint Committee is actively working on extending the standards to larger sizes, up to 100 kva inclusive, of pole-type transformers.

Marshall E. Sampsell

MARSHALL E. SAMPSELL, who was president of the Central Illinois Public Service Company when it was part of the Insull utility system, died April 4 in his apartment at the Drake Hotel, Chicago, after an eight-month illness. He was 66 years old.

Mr. Sampsell began his public utility career in 1903 as receiver for the Chicago Union Traction Company and other affiliated street railway companies, and took an active part in the negotiations which resulted in the adoption of the famous Chicago traction settlement ordinance of 1907. He served as president of the Wisconsin Power & Light Company as well as Central Illinois Public Service Company, two of the largest subsidiaries of the Middle West Utilities Company, of which he was a director.

Mr. Sampsell was very active in the old National Electric Light Association, serving as president of the Great Lakes geographic division, vice-chairman of the public relations national section, chairman of the commercial national section, and as a vice-president of the association. He also served as president of the Illinois Electric Railway Association and of the Society for Electrical Development.

ATLANTIC CITY HOTEL RATES

All Rates Quoted are for Rooms with Bath on European Plan
(Rooms without Bath and Two Bedrooms with Bath Between Are Available in Some Hotels)

BOARDWALK HOTELS	For One Person		For Two Persons (Twin Beds)	
Ambassador	$3.00	$6.00	$6.00	$10.00
Brighton	3.00	5.00	5.00	10.00
Chalfonte-Haddon Hall	3.00	8.00	6.00	12.00
Chelsea	3.00	5.00	5.00	8.00
Claridge	4.00	9.00	6.00	11.00
Dennis	3.00	6.00	6.00	11.00
Knickerbocker	3.00	4.00	5.00	7.00
Marlborough-Blenheim	4.00	6.00	6.00	12.00
New Belmont	2.50	3.00	4.00	6.00
President	3.00	5.00	5.50	8.00
Ritz-Carlton	3.00	6.00	6.00	10.00
Seaside	3.00	4.00	5.00	7.00
Shelburne	4.00	6.00	6.00	10.00
Traymore	3.50	10.00	6.00	12.00

AVENUE HOTELS	For One Person		For Two Persons (Twin Beds)	
Arlington	$2.50		$4.00	$5.00
Bryon			4.50	7.00
Colton Manor	$3.00	$5.00	5.00	8.00
Crillon			6.00	7.00
Eastbourne	3.00	4.00	5.00	7.00
Flanders	2.50	3.00	4.00	5.00
Franklin Inn	2.50		3.00	4.00
Glaslyn-Chatham			$5.00	
Holmhurst	3.00	4.00	5.00	7.00
Jefferson	3.00	3.50	5.00	6.00
Kentucky	3.00		4.00	5.00
Lafayette	3.00	4.00	5.00	7.00
Madison	3.00	4.00	5.00	7.00
Monticello			4.50	5.00
Morton	3.00	4.00	5.00	6.00
Penn-Atlantic	2.50		4.00	5.00
Princess	3.00	4.00	5.00	8.00
Thurber	2.50		4.00	

METERMEN'S HANDBOOK
Fifth Edition now off press

Program

E.E.I. Engineering Committee Meetings

Edgewater Beach Hotel, Chicago, Illinois
May 6-9, 1940

ACCIDENT PREVENTION COMMITTEE

W. R. SMITH, Chairman

The 14th meeting of the Accident Prevention Committee will consist of sessions both morning and afternoon on May 7 and 8, the afternoon session on May 7 being joint with the Transmission and Distribution and Electrical Equipment Committees.

There are a number of matters to come before the Committee on which important announcements are to be made and many others concerned with the various aspects of the Committee's responsibility on which full discussion by all members is desired.

Arrangements have been made for the showing at the Wednesday morning meeting of the new motion picture, "How it Happened," recently developed by the American Telephone and Telegraph Company for use throughout the Bell Telephone System for illustrating to all employees the fundamental causes of a selected group of typical accidents. This is an excellent picture and well deserving of the thoughtful attention of our Committee both as to subject matter and the manner of its presentation. This picture will be introduced and shown by Mr. A. S. Miner or a representative of the Illinois Bell Telephone Company through whose courtesy it is being made available for this meeting.

The following outline indicates the various topics to be presented for the reports by subject sponsors and Committee discussion:

May 7—9 a.m.—East Room

Accident Statistics—Report on 1939 data and trends.
Cause and Location Data—Consideration of revised form and period of reporting.
Traffic Hazards—Line Hazards—Low Voltage Hazards.
Office Hazards—Public Safety—Electric Fences.

May 7—2 p.m.—Ballroom

Joint meeting with Transmission and Distribution and Electrical Equipment Committees. *(See T. & D. program.)*

May 8—9 a.m.—East Room

Rubber Protective Equipment—Protective Equipment (miscellaneous).
Lineman's Handbook—Employee Training.
Employee Health and Physical Reexaminations.
Resuscitation—Report by Chairman on Resuscitation Review Procedure, etc.
At 11:30 A. M. Motion Picture "How it Happened."

May 8—2 p.m.—East Room

Report of Liaison Representatives—Edison Electric Institute Committees.
Report of Liaison Representatives—Non-Edison Electric Institute agencies.
Discussion—Operating routine, hold-off procedure and conditions under which work in vicinity of operating equipment is done.
Discussion—Specific accident cases.
Reports on new devices, procedure, methods, results of tests, etc.

ELECTRICAL EQUIPMENT COMMITTEE

H. L. WALLAU, Chairman

May 6—9:30 a.m.—Michigan Room

Closed Session (Only Committee Members and representatives of E.E.I. Member Companies).

Apparatus Troubles
C. A. CORNEY, Boston Edison Co., Boston, Mass.

System Troubles
C. A. CORNEY, Boston Edison Co., Boston, Mass.

Oil Fire Reports
R. N. CONWELL, Public Service Electric & Gas Co., Newark, N. J.

Report on AEIC Switching and Switchgear Committee's Inspection Trip
NICHOLAS STAHL, Pennsylvania Power & Light Co., Allentown, Pa.

Joint Committee Report on Circuit Breakers
R. W. WILBRAHAM, United Engineers & Constructors, Inc., Philadelphia, Pa.

Temperature Indicators on Transformers
R. T. HENRY, Buffalo, Niagara & Eastern Power Corp., Buffalo, N. Y.

May 6—2 p.m.—Michigan Room

Open Session

Meters & Services Committee Report
A. E. SILVER, Ebasco Services, Inc., 2 Rector St., New York City.

Foreign Practice Group Report
A. V. DEBEECH, Canadian & General Finance Co., 25 King St., W., Toronto, Canada.

Induction Feeder Regulator Practice
R. A. HENTZ, Philadelphia Electric Co., Philadelphia, Pa.

Generator Insulation & Testing Report
C. M. GILT, Consolidated Edison Co. of New York, Inc., New York City.

May 7—9 a.m.—Michigan Room

Normal and Emergency Rating
F. D. WYATT, The United Light & Power Service Co., Kansas City, Mo.

May 7—11 a.m.—Ballroom

Joint Session with Accident Prevention Committee and Transmission and Distribution Committee.

Utilization Voltage Definitions
S. STOKES, Union Electric Co. of Missouri, St. Louis, Mo.

Utilization Voltages
J. H. FOOTE, The Commonwealth & Southern Corp., Jackson, Mich.

Branch Feeder Regulator Practice
C. E. ARVIDSON, The Commonwealth & Southern Corp., Jackson, Mich.

Dancing Conductors
R. N. CONWELL, Public Service Elec. & Gas Co., Newark, N. J.

Rubber Glove Testing Practices
W. B. ELMER, Boston Edison Co., Boston, Mass.

Series Reclosing Breakers
W. G. MILLER, Detroit Edison Co., Detroit, Mich.

HYDRAULIC POWER COMMITTEE

E. B. STROWGER, Chairman

May 7—9 a.m.—Berwyn Room
May 8—9 a.m.—Berwyn Room

Ice Problems in Hydro-Electric Plants
Report on Trash Rack or Intake Screen Practice in Hydro-Electric Plants
C. F. MERRIAM, Pennsylvania Water & Power Co., Baltimore, Md.

Repairs to the Shaft of a Large Hydro-Electric Generator at the Power House Site
E. B. STROWGER, Buffalo, Niagara & Eastern Power Corp., Buffalo, N. Y.

Method of Keeping Dam Drains Open and Working Properly
P. M. LEFEVER, Susquehanna Electric Co., Conowingo, Md.

Accident Prevention in Hydro-Electric Plants
Operating Problems in Connection with Hydro-Electric Plants

METERS AND SERVICES COMMITTEE

A. B. CRAIG, Chairman

May 8—9 a.m.—West Room

Closed Session (Committee Members and invited guests).

Standardization of Current Transformers on Primary Circuits
E. A. LEFEVER, Buffalo, Niagara and Eastern Power Co., Buffalo, N. Y.

Service Cable
J. C. LANGDELL, Commonwealth & Southern Corp., Jackson, Mich.

Standardization of Demand Register Scales
A. J. ALLEN, Consolidated Edison Co. of New York, Inc., New York City.

Material for Meter Terminal Blocks
W. C. WAGNER, Philadelphia Electric Co., Philadelphia, Pa.

May 8—2:00 p.m.—West Room

Promotion of Standards
J. C. LANGDELL, Commonwealth & Southern Corp., Jackson, Mich.

Standardization of Thermal Demand Meter Ratings and Scales
C. P. ZIMMERMAN, American Gas & Electric Service Corp., New York City.

Round Table Discussion

May 9—9 a.m.—West Room

Joint Session with the AEIC Committee on Metering and Service Methods and the meter manufacturers' representatives.

AEIC Committee Chairman—O. K. COLEMAN, American Gas and Electric Service Corp., New York City.

Discussion of Developments and Problems with Manufacturers Representatives

Duncan Electric Company—F. C. HOLMES, President.

General Electric Company—F. G. VAUGHEN, Sales Manager Meter Dept.

Sangamo Electric Company—F. C. HOLTZ, Vice-Pres. & Chief Engr.

Westinghouse Electric & Manufacturing Co.—H. P. SPARKES, Sales Manager Meter Dept.

PRIME MOVERS COMMITTEE

E. L. HOPPING, Chairman

May 6—10 a.m.—East Lounge

Report of Status of Subcommittees

Boilers and Combustion Subcommittee
J. F. MUIR, American Water Works & Electric Co., New York, N. Y.

Boiler Auxiliaries Subcommittee
M. D. ENGLE, Boston Edison Co., Boston, Mass.

Chemistry Subcommittee
H. C. MILLER, Public Service Electric & Gas Co., Irvington, N. J.

Metallurgical and Piping Subcommittee
H. N. BOETCHER, Consolidated Gas Electric Light & Power Co., Co., Baltimore, Md.

Oil and Gas Power Subcommittee
J. M. DRABELLE, Iowa Electric Light & Power Co., Cedar Rapids, Iowa.

Power Station Data Subcommittee
E. H. KRIEG, American Gas & Electric Service Corp., New York, N. Y.

Turbines and Condensers Subcommittee
G. C. DANIELS, The Commonwealth & Southern Corp., Jackson, Mich.

Comparative Corrosion Tests on Various Condenser Tube Alloys
C. W. E. CLARKE, United Engineers & Constructors, Inc., Philadelphia, Pa.

May 6—8 p.m.—Ballroom

Description of Investigation of Impulse Blading—10,000 Kw Development

Turbine Operating in Schuylkill Station, Philadelphia Electric Company
F. T. HAGUE, Engineering Manager of the South Philadelphia Works of the Westinghouse Electric & Manufacturing Co.

May 7—9 a.m.—East Lounge

Round Table Discussion
J. A. KEETH, Kansas City Power & Light Co., Kansas City, Mo.

TRANSMISSION AND DISTRIBUTION COMMITTEE

W. F. NIMMO, Chairman

All Closed Sessions (Only committee members and representatives of E.E.I. Member Companies).

Underground Group

C. W. FRANKLIN, Chairman

May 6—9:45 a.m.—Ballroom

The Joint Corrosion Committee for Electrolysis Mitigation
M. W. GHEN, Duquesne Light Co., Pittsburgh, Pa.

American and English Practice for Cable Sheath Corrosion Protection
W. T. PIERCE, The Okonite Co., Passaic, N. J.

Electrolysis Measurements and Cathodic Protection
A. S. BROOKES, Public Service Electric & Gas Co., Newark, N. J.

A Study of the Formation of Red Oxide as a Corrosion Product
EDGAR F. WOLD, Consolidated Gas, Electric Light and Power Co. of Baltimore, Md.

A Corrosion-Inhibitive Coating for Buried Lead-Covered Cables
W. D. SANDERSON, The Detroit Edison Co., Detroit, Mich.

May 6—2:00 p.m.—Ballroom

Electrolysis and Corrosion, Underground Cable, Gas, and Steam Piping Systems of the Consolidated Edison Co. of New York, Inc.
L. J. GORMAN, Consolidated Edison Co. of New York, Inc., New York, N. Y.

Method for Survey of Stray Sheath Currents on Cables in Ducts
F. KAHN, Philadelphia Electric Co., Philadelphia, Pa.

May 7—9:15 a.m.—Ballroom

Subject Sessions

Standards for Distribution Transformers
A. E. SILVER, Sponsor.

Field Load Testing of Distribution Transformers
F. E. SANFORD, Sponsor.

Street Lighting Standardization
W. B. ELMER, Sponsor.

Tree Clearances
G. D. BLAIR, Sponsor.

Coordination of Protection to Persons, Property and Equipment
G. S. VAN ANTWERP, Sponsor.

May 7—11 a.m.—Ballroom

Joint Session with Accident Prevention Committee, Electrical Equipment Committee and Transmission and Distribution Commitee, H. L. Wallau, presiding.

Utilization Voltages and Definitions
J. H. FOOTE, Commonwealth & Southern Corp., Jackson, Mich., and STANLEY STOKES, Union Electric Co., of Missouri, St. Louis, Mo.

May 7—2 p.m.—Ballroom

Branch Feeder Regulator Practice
C. E. ARVIDSON, Commonwealth and Southern Corp., Jackson, Mich.
Dancing Conductors
R. N. CONWELL, Public Service Electric & Gas Co., Newark, N. J.
Rubber Glove Testing Practices
W. B. ELMER, Boston Edison Co., Boston, Mass.
Series Reclosing Breakers
W. G. MILLER, Detroit Edison Co., Detroit, Mich.

May 8—9:30 a.m.—Michigan Room
Overhead Distribution Group
G. H. FIEDLER, Chairman

Transformer Maintenance Coordinated with Loading Practices
F. E. SANFORD, Cincinnati Gas & Electric Co., Cincinnati, Ohio.
X-Ray Inspection of Electric Utility Poles
MYRON ZUCKER, The Detroit Edison Co., Detroit, Mich.

May 8—11 a.m.—Michigan Room
Standards and Specifications Group
E. V. SAYLES, Chairman

May 8—2 p.m.—Michigan Room
Plant Coordination Group
W. F. DAVIDSON, Chairman

May 8—2:30 p.m.—Michigan Room
Cooperative Projects Group
M. D. HOOVEN, Chairman

May 8—3 p.m.—Michigan Room
Overhead Transmission Group
D. M. BUNN, Chairman

Transmission Line Operating Report
EDWIN HANSSON, Pennsylvania Water & Power Co., Baltimore, Md.
Protective Tubes Operating Report
D. M. BUNN, Northern States Power Co., Minneapolis, Minn.

May 8—4 p.m.

Round Table Discussion

MAY 7—7 p.m.—BALLROOM
DINNER MEETING OF ALL COMMITTEES

"The Magnetic Storm of March 24 and its Effect on Power and Communication Systems"
Speaker: A. G. MCNISH, Dept. of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C.

Discussion:
Effects in the Power System
W. F. DAVIDSON, Consolidated Edison Co. of New York, Inc., New York.
Effects in the Communication System
L. W. GERMAINE, Gen. Supt., Western Area, Long Lines, American Telephone & Telegraph Co., Chicago, Ill.

Some Power Problems for Solution

(*Continued from page* 170)

distribution peaks are at a minimum, and loads of this character will tend to build up our over-all system load factors.

The use of electricity in the commercial cooking field is steadily increasing, and based on surveys there are better than 700,000 kw of this load on our lines. The last Commercial Electric Cooking Council Reports show an addition of 65,000 kw for 1938, with an estimated revenue of $1,580,000. In view of the highly competitive nature of this business, this seems to have been a good job and indicates that a full time man can turn in about $8,700 in revenue per year.

The intensities of industrial illumination are rapidly being raised to provide increased production, lower rejects, and give greater safety to the employees. Past surveys have indicated very low average intensities which if raised to certain accepted standards would increase the utility revenue many millions of dollars annually. The high intensity mercury vapor lamp and the new fluorescent lighting unit offer industry tools which mean much in the way of better quality product and increased profits.

In spite of the many problems which our Power Sales organizations have had to face, I believe they have done a good job, and for proof of that I should like to refer you to Figure 1. This chart shows a curve of the index of industrial production for the past 12 years, as well as indexes of large power sales, large power revenue, and average rate. Due to intensive selling, plant modernization, and other factors, the kwhr sales have increased at a much faster rate than industrial production. The ratio between these two curves was 1.35 in 1929, while it was 1.98 in 1939. The resulting revenue, however, has not increased at the same ratio, due to rate reductions and better load factors.

The Chemurgic movement has as its chief aim the utilization of products of the soil. I understand that products of the farm have more than four hundred non-food uses in industry. For example, corn is used in making alcohol, sweet potatoes in laundry starch, Irish potatoes in plastics, grape seed oil in soaps, and soy beans in plastics and scores of other products, including automobiles and linoleum. Think of the possibilities for the sale of power to these new industries which will be built up as a result of this research work.

Exceptional progress is being made by the chemical industry in the development and application of plastics to industry. It would seem as if the number of articles which can be created from the different chemical combinations is almost countless. Furniture is now being made, and someone has even expressed the thought that it won't be long before refrigerators and automobile bodies will be built from plastics instead of steel. Plastics, too, require power in large quantities.

No one realizes the value of salesmanship more than you gentlemen sitting in this room today. You should also appreciate that your power sales representatives, more perhaps than any other group, need intensive sales training if they are to continue to hold present business and obtain new. Power sales are going to depend more and more on emotion and reason and the benefits which the customer will enjoy, rather than arguments on the cost per kwhr and how big an organization you have. The power salesman must sell the value of the service and all the collateral advantages which go with it, and that means he must be properly trained for the job and not just grow into it.

See that he has enough customer contacts to make but not so many that he can't take care of them properly; support his calls with the proper advertising,

sales aids, trade magazines, etc., and I feel sure that not only will his jobs saved offset his losses many times, but he will have created a large amount of profitable new business, in addition to building up a customer relationship which is invaluable.

Wouldn't it be nice to feel that we had reached such a perfection in salesmanship that we could know that the things we had sold would remain permanently sold, that we could go to sleep at night feeling that no matter what happens they can't take these things away from us? Well, fortunately, the utility business is not that way. We are a progressive business, and on the progress which we show depends to a great extent the prosperity we hope to achieve.

We must expect that as we develop new ideas and processes our competition will endeavor to find some way of doing the job better. We can't remain static. We must meet that competition with a tremendous amount of sales effort and be ever on the alert for new developments which will broaden our endeavors and increase our sales.

CONVENTIONS AND MEETINGS

MAY

1-3	American Society of Mechanical Engineers, Spring meeting, Worcester, Mass.
6-7	American Management Association, Insurance Division, Hotel Traymore, Atlantic City, N. J.
6-9	Technical Committees, E.E.I., Edgewater Beach Hotel, Chicago, Ill.
8-11	National Fire Protection Association, Atlantic City, N. J.
9-11	Southeastern Electric Exchange, Hotel Roanoke, Roanoke, Va.
10-11	Air Conditioning Manufacturers Association, The Homestead, Hot Springs, Va.
12-17	National Electrical Manufacturers Association, The Homestead, Hot Springs, Va.
14-17	National District Heating Association, French Lick Springs Hotel, French Lick Springs, Ind.
17	Empire State Gas and Electric Association, Electric Operating Group, New York, N. Y.
19-20	South Dakota Central Station Conference, Sioux Falls, S. D.
19-23	National Electrical Wholesalers Association, The Homestead, Hot Springs, Va.
22-24	Pacific Coast Electrical Association, Hotel Oakland, Oakland, Calif.
23-24	Northwest Electric Light and Power Association, Accounting and Business Practice Section, Benson Hotel, Portland, Ore.
23-24	Public Utilities Advertising Association, Palmer House, Chicago, Ill.
24-28	Westinghouse Agent-Jobbers Association, The Homestead, Hot Springs, Va.
25-28	Canadian Electrical Association, Seignoiry Club, Province of Quebec, Canada.

JUNE

3-6	EDISON ELECTRIC INSTITUTE, Atlantic City, N. J.
3-6	National Association of Purchasing Agents, Cincinnati, Ohio.
24-27	National Association of Cost Accountants, St. Louis, Mo.

SEPTEMBER

4-6	Pennsylvania Electric Association, Bedford Springs Hotel, Bedford Springs, Pa.
9-12	Illuminating Engineering Society, Essex and Sussex Hotel, Spring Lake, N. J.
25-27	Indiana Electric Association, French Lick Springs Hotel, French Lick Springs, Ind.
26-27	The Empire State Gas and Electric Association, Westchester County Club, Rye, N. Y.

OCTOBER

7-10	American Gas Association, Atlantic City, N. J.

PERSONALS

GEORGE C. MATHEWS, one of the original members of the Securities and Exchange Commission, resigned effective April 15, to become a vice-president of the Northern States Power Company, subsidiary of Standard Gas & Electric.

Mr. Mathews has been in public service almost continuously since his graduation from the University of Wisconsin in 1908. For several years he was connected with the Wisconsin Railroad Commission as statistician-in-charge of public utility rate and accounting work, directed administration of the Wisconsin securities law as chief of securities division and as chief examiner.

In 1933 he left the commission to assist the receivers of the Middle West Utilities Company, as vice-president in charge of rates. In the same year he was appointed as a member of the FTC and in 1934 became one of the original members of the SEC.

HERMAN B. WATERS has been elected to the presidency of Telluride Power Company to fill the vacancy created by the death of Paul N. Nunn. Mr. Waters has been associated with the company for 30 years; he was made general manager in 1916 and vice-president in 1930.

WILLIAM H. HODGE has resigned as Associate Publisher of *Public Service Magazine* to devote more time to the business of Pierre L. Miles and Associates, national sales representatives of electrical appliances, Chicago.

After 10 years as tax agent for Portland General Electric Company, Portland, Ore., B. T. BAIN has been appointed purchasing agent.

LEONARD LATHROP is now advertising manager of Jersey Central Power & Light Company, in addition to his duties as publicity director.

HAROLD G. HAYDON, Potomac Electric Power Company, Washington, D. C., was elected president of Maryland Utilities Association at the annual meeting held at Baltimore, April 5. He succeeds Joseph A. Stoll, Baltimore Transit Company. Other officers elected were: ROBERT L. SMITH, Potomac Edison Company, vice-president; R. F. BONSALL, Consolidated Gas, Electric Light & Power Company of Baltimore, treasurer; and G. F. JONES, Potomac Electric Power Company, secretary.

GEORGE L. MACGREGOR has been appointed vice-president and general manager of the Dallas Power & Light Company. The vacancy in the presidency caused by the death of C. W. Davis has not been filled. H. K. DOYLE, chief engineer, was elected as a new director.

J. W. SHEALY has become acting superintendent of the northern division of the Alabama Power Company, replacing J. T. NOLEN, who has been transferred to the Gadsden district as supervisor.

C. R. HIGSON, formerly superintendent of system distribution for Utah Power & Light Company, Salt Lake City, has been made special consultant on distribution engineering and operation for the entire system.

L. HARRY HOWE of the Boston Edison Company was elected chairman of the System Operators of New England for 1940-41 at the recent annual meeting in Boston. HAROLD L. DURGIN, chief engineer, Central Vermont Public Service Corporation, was elected secretary.

JAMES S. MOULTON, assistant to the vice-president and assistant general manager of Pacific Gas & Electric Company, has been appointed to a position in the statistical and rate department under W. G. Vincent, executive engineer.

ROBERT A. GRAVES has been appointed purchasing agent of the Kansas City Power & Light Company. Mr. Graves has been serving in the power sales department of the company, with which he has been connected since 1920.

OFFICERS AND COMMITTEES OF THE EDISON ELECTRIC INSTITUTE

1939-1940

OFFICERS

C. W. KELLOGG, *President*
420 Lexington Avenue, New York, N. Y.

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Consolidated Edison Co. of New York, Inc., New York, N. Y.

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Georgia Power Co., Atlanta, Ga.

H. S. BENNION, *Vice-President & Managing Director*
420 Lexington Avenue, New York, N. Y.

F. H. NICKERSON, *Treasurer*
Consolidated Edison Co. of New York, Inc., New York, N. Y.

MAE B. WOODS, *Secretary*
420 Lexington Avenue, New York, N. Y.

OPERATING COMMITTEE

Chairman, C. W. KELLOGG, New York, N. Y.

E. R. ACKER, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.

J. M. BARRY, Alabama Power Co., Birmingham, Ala.

H. C. BLACKWELL, The Cincinnati Gas & Electric Co., Cincinnati, Ohio.

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W. H. BURKE, Ebasco Services Incorporated, New York, N. Y.

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FRANK MCLAUGHLIN, Puget Sound Power & Light Co., Seattle, Wash.

W. E. MITCHELL, Georgia Power Co., Atlanta, Ga.

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J. F. OWENS, Oklahoma Gas & Electric Co., Oklahoma City, Okla.

R. F. PACK, Northern States Power Co., Minneapolis, Minn.

W. H. SAMMIS, The Commonwealth & Southern Corp., New York, N. Y.

G. T. SHOEMAKER, The United Light & Power Service Co., Chicago, Ill.

CHESTER C. SMITH, Kansas City Power & Light Co., Kansas City, Mo.

PHILIP SPORN, American Gas & Electric Service Co., New York, N. Y.

E. C. STONE, Duquesne Light Co., Pittsburgh, Pa.

E. S. THOMPSON, American Water Works & Electric Co., New York, N. Y.

G. W. VAN DERZEE, Wisconsin Electric Power Co., Milwaukee, Wis.

P. S. YOUNG, Public Service Electric & Gas Co., Newark, N. J.

CHAIRMEN OF THE COMMITTEES

Accident Prevention, W. R. SMITH, Public Service Electric & Gas Co., Newark, N. J.

General Accounting, B. S. RODEY, JR., Consolidated Edison Co. of New York, Inc., New York, N. Y.

Classification of Accounts, A. M. HARTOGENSIS, Ebasco Services, Inc., New York, N. Y.

Customers' Relations, Commercial Accounting and Collections, L. A. MAYO, The Connecticut Light & Power Co., Hartford, Conn.

Depreciation, C. E. KOHLHEPP, Wisconsin Public Service Corp., Milwaukee, Wis.

Plant Accounting and Records, J. V. CLEARY, Consolidated Edison Co. of New York, Inc., New York, N. Y.

Purchasing Stores and Transportation, K. C. CAMPBELL, The Detroit Edison Co., Detroit, Mich.

Electrical Equipment, H. L. WALLAU, The Cleveland Electric Illuminating Co., Cleveland, Ohio.

Hydraulic Power, E. B. STROWGER, Buffalo, Niagara & Eastern Power Corp., Buffalo, N. Y.

Insurance, J. H. NICKELL, Philadelphia Electric Co., Philadelphia, Pa.

Membership, EDWARD REYNOLDS, Columbia Gas & Electric Corp., New York, N. Y.

Prime Movers, E. L. HOPPING, Philadelphia Electric Co., Philadelphia, Pa.

Prize Awards, H. P. LIVERSIDGE, Philadelphia Electric Co., Philadelphia, Pa.

Rate Research, F. A. NEWTON, The Commonwealth & Southern Corp., New York, N. Y.

General Sales, H. E. DEXTER, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.

Statistical, W. T. NEEL, Philadelphia Electric Co., Philadelphia, Pa.

Transmission and Distribution, W. F. NIMMO, Virginia Electric & Power Co., Richmond, Va.

Codes and Standards (a Subcommittee of the Operating Committee)
A. H. KEHOE, Consolidated Edison Co. of New York, Inc.
New York, N. Y.

BOARD OF TRUSTEES
OF THE
EDISON ELECTRIC INSTITUTE
1939-1940

(*Terms expiring* 1940)

FLOYD L. CARLISLE.....Consolidated Edison Company of New York, Inc., New York, N. Y.
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GEORGE N. TIDD.....American Gas & Electric Company, New York, N. Y.
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(*Terms expiring* 1941)

FRANK D. COMERFORD.....Boston Edison Company, Boston, Mass.
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(*Terms expiring* 1942)

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C. W. KELLOGG.....Edison Electric Institute, New York, N. Y.
B. W. LYNCH.....Standard Gas & Electric Company, New York, N. Y.
A. C. MARSHALL.....The Detroit Edison Company, Detroit, Mich.
THOMAS N. MCCARTER.....Public Service Electric and Gas Company, Newark, N. J.
H. HOBART PORTER.....American Water Works & Electric Company, Inc., New York, N. Y.
HERBERT A. WAGNER.....Consolidated Gas, Electric Light & Power Company of Baltimore, Baltimore, Md.
WENDELL L. WILLKIE.....The Commonwealth & Southern Corporation, New York, N. Y.